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214 SNGKYKGMAPGAKLAGIKVLGADGSGSISTIIKGVEWAV----DNKDKYGIKVINLSLOS 269
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                20.1%; Score 688; DB 16; Length 442;
39.7%; Pred. No. 1.8e-27;
!ve 78; Mismatches 132; Indebs 44; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  43 TPGLFRKI--OKLNPNEEISTVIVFENHREK---EIAVRVLEL-MGAKVRYVYHIIPAIA 96
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           35 TPCFLHKFFETKLONRKKMSVILEFEEGCHETGFOMAGEVLOKEKRSKLKSRFNKINCCS 94
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Particle (PAY-197) to the FRANCES ACCESS.

EMPIRICAL PARTICLE (PAY-197) to the FRANCES ACCESS.

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EMPIRIOR (PAY-197) to the FRANCES ACCESS.

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Natches 167; Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           STRAIN-168;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           435 I 435
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           157 RDASVRELDSIDARAVRVDEAELGRFWKRLVPA-------GGQRAKAAA-- 198
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    122 PIGEDYKUTVSAELEG-----LDESAAQVHATVVNNLGYDGSGITIGIIDTGIDASHPDL 176
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      199 ------ATPRYHLDGRYGASLDRSTAGIGAFDYMSAGYRGDGVKVAYLDTGADOSHPDL 251
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            177 OGKVIGWVDFVNGRSYPTDDHGHGTHVASIAAGTGAANSNGKYKGMAPGAKLAGIKVLGAD 236
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              152 AGRVADARDF SGSSGFWDVFGHGTHVASIVGGSGAASGGSRQGVAPARELLAVGRVLGDD 310
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    237 GSGSISTIIKGVEWAVDNKEKYGIKVINLSLGSSGSBCTDSLSGAVNN-AMDAGIVVCV 295
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            296 AAGNSG-PNIYITUGSPAAASKVITUGAVDSNDNIASFSSRGP-TADGRIKPEVVAPGVDI 353
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              554 IAPRASGTSMGTPINDYYTKASGTSMATPHVSGVGALILQAHPSWTPDKVKTALIETADI 413
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                                                                                                                                                                                                                                                                                                                                                                                                                                                  71 KEIAVRVLELMGAKV------RYVYHIIPAIAADLKVRDLLVISGLTGGKAKLSGVR 121
                                                           PRINTS; PRO0723; SUBTILISIN.
PROSTITE: PRO0131; SUBTILIASE.HES; UNKNORN_1.
PROSTITE; PSG0128; SUBTILIASE.ERR; 1.
SEQUENCE: 1245 AA; 130895 MW; 74ZE92DB9CA1DEGO CRC64;
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01-03N-1998 (TrEMBLrel. 05, Last Sequence update)
01-05C-2001 (TrEMBLel. 19, Last annotation update)
ALKALINE SERINE PROTEASE.
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Bacillus/Clostridium group;
Bacillus/Stabhylococus group;
Bacillus/Stabhylococus group;
Bacillus/Stabhylococus
NGI_PaxID-1423;
                                                                                                                                                                                                                                                                                                                                                                                       Matches 181; Conservative
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STRAIN-168;
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692 VPVDARKAKPVKVTVPGKAAKAQPASADYTIETHDSAVSYGWMLENYSGPRSAHL---- 746
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   95 IAADL---KVRDLLVISGLTGGKAKLSGVRFIQEDYKVTVSAELEG-LDESAAQVAATYV 150
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Complete persone sequence of the alkaliphilic bacterium Bacilius , worlds, deforms and seconic sequence congentson with Bacilius subtilis. , woclet Acid ses. 28 4437-431 (2000). Selection of the Bacilius subtilis. ) Selection ses. 28 4437-431 (2000). Selection seconic sequence construction set and seconic sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   266 SLGSS----QSSDGTDSLSGAVNNAMDAGIVVCVAAGNSGPN7YTVGSPAAASKVITVGAV 322
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     STRAIN-C-123 / JUN 9133)
FROINTE-SCAISES: PAMEGI-1058132;
TREATH R., MARKSONG K., TAKAKI Y., MAGNO G., SSHOKL R., MASUL N.,
POJI F., Hitama C., Makamira Y., Ognsawara N., Kuhara S.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           19.5%; Score 667.5; DB 16; Length 444; 36.7%; Pred. No. 2e-26;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           THEREOF TROUBLE OF LAKES
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01-077-2000 (TrBMsLrel. 15, Last sequence update)
01-087-2001 (TrBMsLrel. 19, Last senoteston update)
INTRACELULIAR ALKALINE SERINE PROTRAGE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Bacteria; Firmicutes; Bacillus/Clostridium group;
Bacillus/Staphylococcus group; Bacillus.
NSI_TaxID-86665;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               444 M
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199 TAPGVOLTAASAKONDIAKBVOGKPACIPHTSGTSSATPHYKAAAALLAQOIPPAYKKEL 418
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                                                                                                   01-MAY-1997 (FIRBLIED, 03, Created)
01-MAY-1997 (FIRBLIED, 03) Last sequence update)
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SUBTILISMILIES PROFINES.
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                                                                   414 ARSHLADGSG------DYTSHDGTSMATFHLAGVAALLAEEHDD#SGARLKDALMSTS- 465
                                                                                                                                                                       413 IVAPKEIADIAY--GAGRVINYKAIKYDDXAKLTFTGSVADKGSATHTFDVSGATFVTAT 470
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                356 PR---ASGTSMGTPINDYYTKASGTSMATPHVSGVGALILQAHPSWTPDKVKTALIETAD 412
                                                                                                                                                                                                         466 ----- RELDVSAYQLGAGRVSVPAAVGAD-----VTATGS-ADLGPYSRPYEADEP--VTRT 514
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Bacteria: Firmicales: Actinobacteria: Actinobacterides:
Actinoprofesias: Straptomyclaese: Straptomycetacese: Straptomyces.
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Submitted (AUG-2000) to the EMBL/GenBank/DDBJ databases
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PROCENTE: PRODISE: SUBTILIESIA.
SUDUREN: 1353 AA: 110771 MR: AASHATJEREEDB89 CRC64;
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Submitted (AUG-2000) to the EMBL/GenBank/DDBJ databases
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InterPro, IPR000209; Peptidasc_S8.
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01-NAR-2001 (TEMBLES) 16,
01-DEC-2001 (TEMBLES) 19,
PUTATIVE SECRETED PEPTIDASE.
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Best Local Similarity 33.1%
Matches 195; Conservative
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                                                                                                                                                                                                                                                                                                                                                                                         515 VAY-THSSDTDVEL 527
                                                                                                                                                                                                                                                                                                                                      471 LYMDTUSSDIDLYL 484
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STRAIN-A3(2);
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Bagt Local Similarity 43.0%; Pred No. 1e-25.4
Manches 161; Conservative 62; Mismatches 114; Indess 37; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  178 GKVIGNVDFVNCRSYPYDDHGHGTHVASIAAGTGAASNGKTKGMAPGAKLAGIKVLGADG 237
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                239 GRIAQSRSFIPGEEVA-DRHGHGTHVTSTVGGSGAASDGKEKGVAPGATLAVGKVLDDEG 297
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     238 SGSISTIIKGVEHAVDNKDKYGIKVINISLGSSQSSDGTDSLSQAVNN-AMDAGIVVCVA 296
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KINGRIDGE FOR A. M. SEGMENT B. ELCHER A. COLIUM J.,

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371 YTKASGTSKATPHVSGVGALILQAHPSWTPDKVKTALIETADIVAHKEIADIAYGAGRVN 430
                                         Strapionyes coalitolor.
Bacceria: Firmiques; Actinobacteria: Actinobacteridae;
Actinomyceriss; Etraptomycines: Straptomyces.
NGB_TARD-902;
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Submitted (APR-2000) to the EMSL/GenBank/DDBJ databases.
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STRAIN-A3(2);
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STRAIN-A3(2);
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                                                                                                                                                                                                                                                                                             203 VASIRAGTGANSNGKYKGMAPGAKLAGIKVLGADGSGSISTIIKGVEWAVDNKDKYGIKV 26.2
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         322 VD-----SNDWIASFSSRGPTADGRLKPEVVAPGVDIIAPRASGTSMGTP---INDYY 371
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             290 VDDKRTPDIEDDEVAKFSGRG--GPYLYKPDVVAPGVKIVSTASGNVPFGADEIMINKPY 347
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            372 TRASGTSMATPHYSGYGALILDAHPSW7PDKYKTALIETADIVAPKEIADIATGAGRYNY 431
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Actinomycetales: Streptomycinase; Streptomycetacese; Streptomyces.
MCB_TRAID=1902;
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Supmitted (AUG-2000) to the ENBL/GenBank/DDBJ databases.
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Péne, PRO2013, PARLINEA SE, 1
PROSTES, PRO0136, SURTILAS, SP. UNKNOW, 1
SEQUENCE 1239 AM: 128595 AM: 875594C86BB1260A CRC64,
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Submitted (AUG-2000) to the EMBL/GenBank/DDBJ databases.
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Pred. No. 3.2e+23:
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QPERT,
QI-MR-2001 (TERMBLE1 16, CC
01-WR-2001 (TERMBLE1, 16, LA
01-DEC-2001 (TERMBLE1, 19, LA
PUTATIVE SECRETED PEPTIDASE,
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STRAIN-A3(2);
Smundere D.C., Harr
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STRAIN-A3(2);
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206 IAAGTGAASHGKYKGHAPGAKLAGIKVIGADGSGSISTIIKGVEWAVDHKDKYGIKVINL 265
                                                                                                                                                                                                                   TVAGTGAAGGVEKOVARGASAHIGKVLDNGGSQDSINLAGNEMAV--ROQHA-KIVSH 342
                                                                                                                                                                                                                                                                                                                                                                                    SLGSSQSSDGTDSLSQAVNRAH---DAGIVVCVAAGNSGPNTYTVGSPAAASKVITVGAV 322
                                                                                                                                                                                                                                                                                                                                                                                                                                                   323 DSN----DNIASFSSRCP-TADGRLKPEVVAPGVDIIAPRASGISHGTPINDYYTKASGT 377
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  378 SHATPHUSGVGALILQAHPSKTPDKVKTALIETADIVAPKEIADIAYGAGRVNVYKAIKY 437
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              457 SHATPHVAGAALLAABHDWIGGRLKEALVGTT--AGTORESPEDAGSCRVDVAAAVR- 513
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              438 DBYAKLTPTGSVADKGSATHTFDVSGATFYTATLYWDTGSSDI--DLYLYD---PNGNEV 492
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              514 ---STLLASG---DAFAQAHYPYTPGQTVRRDVTYTHSGPAPVALDLALSPAELPEG--- 564
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37.4%; Pred. No. 3.36-25;
tive 70; Mismatchee 153; Indels 43; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  87 YVYHIIPAIAADLKVRDLLVISGLTGGKAKLSGVRPIQEDYKVTVSAELEGLDESAAQVM 146
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Jang N.J., Kim B.C., Pyun Y.R., Kim Y.S.;
Subtilisin-like protesse, thermicin, from Thermognacrobacter
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Subject (FE-201) to the Out-Control decisions.

Bull, NOSPS, AM2773.1, 1 to OUT-Control decisions.

Bull, NOSPS, SUBJECT (STATE OUT-CONTROL decisions.)

BULL OUT-CONTROL DECISIONS.

BULL OUT-CONTROL DECISIONS
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            565 -----LFLSEAQVIVPAHGTASVGVITHLDAAEDNGAYATRLVASGA 607
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SEQUENCE 412 AA; 44503 MW; E3C6AOFBIBIAID47 CRC64;
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Matches 159; Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GWUDFYNGRSYPYDDHGHGTHYASIAACTGAASNGK--YKGWAPGAKLAGTKVLGADGSG 239
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   240 SISTIIKGVEMAVDNKDKYGIXVINLSLØSSQSSDGTDSLSQAVNNAMDAGIVVCVANGN 299
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            300 SGP--NIYTVGSPAAASKVITVGAVDSNDNIASFSSRGPTADGRLKPEVVAPGVDIIAPR 357
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      260 SGSSGNTNTIGYPAKYDSVIAVGAVDSNSNRASFSSVG-----ARLEVMAPG----- 306
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            307 -AGVYSTYPTNIYAT-LNGTSNASPHVAGAAALILSRHPNLSRSQVRNRLSSTATTUG-- 362
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               3 CINALILVILVIGLVVGSVAAAPEKKVEQVRNVENYGLLTPGLFRKIGKLNPNEEISTV 62
                                                                                                                                                                                                                                                                                                                                                                                                                                                         63 IVFBNH-REKEIAVRVLELMGAKVRYVYHIIPAIAADLKVRDLLVISGLTGGKAKLSGVR 121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         151 GGASFVAGEAXNTDGNGHGTHV----AGTVAALDNTTGYLGVAPSVSLXANKVLNISSGG 206
                                                                                                                                                                                                                                                                            3 GLKALILVILVIGLVVGSVAAAPEKKVEQVRNVEKNYGLL7PGLFRKTOKLNPNEEISTV 62
                                                                                                                                                                                                                                                                                                                                                                   10 CHLTAPHLVFTWAFSDSASAAQPAK----NVEKNY-----I 41
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               42 VGPKSGVKTASVKKDIIKESGGKVDKOFRIINAAKAKLDKEALKEVK-----NDPDVA
                                                                                                         16.5%; Score 564; DB 2; Length 374; 35.3%; Pred. No. 2.8e-21;
                                                                                                                            Query Match
16.54; Score 564; DB 2; Length 374
each Local Similarity 35.34; Pred: No. 2.8e-21; Matches 155; Conservative 62; Mamarches 145; Indels
374
38423 MM: 640142EB813D0E60 CRC64;
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01-MAR-2001 (TERMILTO). Last sequence update)
01-PGC-2001 (TERMILTO). 19, Last annotation update)
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374 AA:
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SECUENCE
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09FDF4;
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                                                                                      100 KVRDLLVISG-----YKVTVSARLE 136
                                                                                                                                                                            161 KVRDLASVQGAALSADRARAAEFWRSVICEGPAGGGVRDSGTDAAFRGGVAHIWLDAPVE 220
                                                                                                                                                                                                                                                                                                                                                         221 ADLADSTAGICAPRAWAGGNIGGOVEVAVLDTCVDAGHPDLADRIAARGSFVPDENID-D 279
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         280 RDGHCTHVASTIAGTGAASAGKEKGVAPGARLSIGKVLDNSGRGGISWTLAAMEHAVER 339
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   256 DRYGIKVINISLOSSQSSDGTDSLSQAVNN-AMDAGTVYCVAAGNSGPNTYTVGSPAAAS 314
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            340 H---AKIYNKSLGSGEOSDGSDPMSRAVDRLSAQTGALFVVAAAGNGG-EAGSIGAPGVAI 395
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      315 KVITVGAVDSNDNIASFSSRQPTALOCRLKPEVVADGVOLIAPRASQTSNGTPINDVYTRA 374
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               375 SGTSNATPHVSGVGALTLQAHPSNPPDKVKTALIETADIVAPKEIADIAY-----GAGRV 429
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               153 SGTSMATPHVAGAAALLAAARPDLSGSALK-----DVLASSSHRTPRYDAYOAGSGRV 505
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            430 NVYKAIKYDDYAKLJFIGSVADKGSATHTFDVSGATFVTATLYNDTGSSOIDLYLYDPNG 489
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            506 DVDMAVRAGVYASATAYAPGSSPQPVRRLVTYTNTTGAAVTL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         490 NEVDYSYTAYYGFEKYGYYNPTACTWTVKVYSYKGAANYDVDVYSDGSLSQSGGNPNPN 549
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      548 ---ELSVAATHAPE--GVFRLSASRVTVPA---HGTAD--VTLTIDGSGSAGG----- 590
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            550 PNPNPPPTIDIDIFIGSVNDYMDISDIFTNNVNSGAIKITGDLIFDTSYNDLDLYLYDPN 609
         Matches 182; Conservative 72; Misnatches 196; Indels 119: Gaps
                                                                                                                                                                                                                                                                   137 G-LDESAAQVMATYVWHLGYDGSGITIGLIDTGIDASHPDLGGKVIGHVDFVNGRSYPYD 195
                                                                                                                                                                                                                                                                                                                                                                                                                                               196 DHGHGTHVASIAAGTGAASNGRYKGMAPGAKLAGIKVLGADGSGSISTIIKGVERAVDNK 255
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SPAIN ACCOUNTS - CONSTREAM OF THE COLOR OF STAIN OF STAIN
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01-AAR-2001 (TrEMBLrel. 16, Lest sequence update)
01-BC-2001 (TrEMBLrel. 19, Last annotation update)
SUBILLISIN PRECURSDR (EC 3.4.21.62) (FRAGMENT).
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Becillus/Stabylococus group; Bacillus/Clostridium group;
Bacillus/Stapylococcus group; Sacillus.
KFL/Tat/L-1402;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PRT: 374 AA
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SUBTILISIN.
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BRELL AFFOSTS 1. MAGIADRE 1.
HSSP. 100780, MSSE.
FREEDO. INFOCOTORY. PEPTILABLE SE.
FIRST. PROCOSTS. PEPTILABLE SE.
PRINTS. PROCOSTS. SEPTILABLE SE.
PROCOSTS. PROCOSTS. SEPTILABLE SE.
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Q9F941;
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122 FIGEDYKYTVSAELEGLDESAAQVMATYVHNLGYDGSGITIGIIDTGIDASHPDLGGKVI 181
                                                                                                                                   95 YMEEDH--VAHALAQIYPYGIPLIXADKVQAQGFKGANVKVAVLDIGIQASHPDL--NVV 150
                                                                                                                                                                                       182 GWYDPWNGRSYPYDDHGHGTHVASIAAGTGAASNGK--YKGNAPGAKLAGIKYLGADGSG 239
                                                                                                                                                                                                                       151 GGASPYAGBAYNTDONGHGTHV----AGTVAALDNIYGVLGVAPSVSLTAVKVLNSSGSG 206
                                                                                                                                                                                                                                                                                     240 SISTIIKGVEHAVDHKDKYGIKVINLSLGSSQSSDGTDSLSQAVHHAMDAGIVVCVAAGH 299
                                                                                                                                                                                                                                                                                                                300 SGP--NTYTVGSPAAASKVITVGAVDSHDNIASFSSRGPFADGRLKPEVVAPGVDIIAPR 357
                                                                                                                                                                                                                                                                                                                                                                                                                              860 SGSSGWTWIIGYPAKYDSVIAVGAVDSNSNRASFSSVG-----AELEVMAPG----- 306
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        358 ASGESMOTPINDYTRASCTSMATPHYSOWGALILOAMPSWTPDWYKTALIETADIVAPK 417
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       4 2 VGFKSGVKTASVKKDIIKESOGKVDKOFRIINAAKAKLDKEALKEVK-----NDPDVA 94
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               63 IVFENH-REKEIAVRVLELMGAKVRYVYHIIPAIAADLKVRDLLVISGLTGGKAKLSGVR 121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      74; Gaps
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                10 GMLTAFHLYFTHAFSDSASAAOPAK-----NVEXDY-----I 41
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Windise-2056/734; probad-1109488;
What K.L., Crowder J.S., Williar B.S.;
Subtilisins of Seclitus of Microbyse keratin and allow growth on
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              42 VGFKSGVKTASVKKDIIKESGGKVDKQFRIINAAKAKLDKEALKEVK-----NDPDVA 94
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DB 2; Length 374;
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15.3%; Score 559; DB 2; Length 374
Merches Isti, Conservative 63; Hismarches 145; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              30 >374 SUBILLISIN,
374 374
374 AA: 38396 MM: 6048C178985413B1 CRC64;
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01-WAR-2001 (TREMBLEL: 18, Last sequence update)
01-DG-2001 (TREMBLER: 13, Last ennotation update)
SUBTILISIN PRECURSDR (2C. 3.4.21.62) (FRAGMENT).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Decteria: Pirmicutes; Bacillus/Clostridium group;
Bacillus/Staphylococcus group; Bacillus.
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SUBILLISIN,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           418 BIADIAYGAGRVNV 431
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           163 -- SSPYTCKGLINV 374
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         >374
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STRAIN-NCIMB 6816;
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                                               63 IVFENH-REKEIAVRVLELMGAKVRTVYHIIPAIAADLKVRDLLVISGLIGGKAKLSGVR 121
                                                                                         42 VGFKSGVKTASVKKDIIKESGGKVDKOFRIINAAKAKLDKEALEBSVK-----NDPDVA 94
                                                                                                                                        22 FIQEDYKVTVSAELBGLDESAAOVMATYVWHLGYDGSGITIGIIDTGIDASHPDLGGKVI 181
                                                                                                                                                                                  95 YVEEDH--VAHALAQTVPYGIPLIXADKVQAQGYKGANVKVAVLDTGIQASHPDL--NVV 150
                                                                                                                                                                                                                                      182 GWVDFVNGRSYPYDDHGHGTHVASIAAGTGAASNGK--YKGMAPGAKLAGIKVLGADGSG 239
                                                                                                                                                                                                                                                                151 GGASFVAGRAYNTOGNGHGTHV ----AGTVAALDNTTGVLGVAPNVSLXAVKUHSSGG 206
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                                                                                                                                                                                                                                                                                                                                                                                                                                                        358 ASGTSHGTPINDYYTKASGTSNATPHVSGVGALILQAHPSWTPDKVKTALIETADIVAPK 417
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 314 PTST------YATLACTSHASPHYAGAALILISKHPHISASOVRNRLSSTATYLG-- 362
10 GHLTALMLVPTMAFSDSASAAQPAK-----NVEKDY------IA
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Best Local Similarity 35.04; Mened No. 46.21; Indels 714;
Notchee 152; Condervative 64; Mismacches 114; Indels 714; Gaps
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30 >374 SUBTILISIN.
374 AN: 38390 NW: B61432A1B42C526E CRC64;
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01-MAR-2001 (TEMBLEEL IS, Created)

01-MAR-2001 (TEMBLEEL IS, Last sequence update)

01-DG-2001 (TEMBLEEL IS, Last annotation update)

5081ILISIN PRECURSOR (EC 3.4.21.62) (FRAGRENT).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Bacillus licheniformis.
Bacteria: Firmicutes; Bacillus/Clostridium group;
Bacillus/Staphylococcus group; Bacillus.
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BRES, PORGOD, LCSE,
TREEFOR TREGODES, PRESLAMAGES.
TREEFOR TREGODES.
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SEQUENCE
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63 IVPENH-REKEIAVRVLELMGAKVRYVYHIIPAIAADLKVRDLLVISGLTGGKAKLS--- 118
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                                                                                                                                                                                                                                                                             300 SGP--NYTYGSPAAASKVIIVGAVDSNDNIASPSSRGPTADGRLKPEVVAPGVDIIAPR 357
                                                                                                                                                                                                                                                                                                                                                                              260 SGSSGNTHTIGYPAKYDSVIAYGAVDSNSNRASFSSVG-----AELEVMAPG----- 306
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    358 ASCTSMOTPINDYYTKASGTSMATPBVSGVGALILQAHPSWTPDKVKTALIETADIVAPK 417
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151 GGASFVAGEAYNTDGNGHGTHV----AGTVAALDNTTGVLGVAPSVSLYAVKVLNSSGSG 206
                                                                                      240 SISTIIKGVEHAVDNXDKYGIKVINLSLGSSQSSDGTDSLSQAVNNAHDAGIVVCVAAGN 299
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                                                                                                                                            207 SYSGIVSGIENATH ---GMDVINNSLG---GASGSTANKQAVDNAYARGVVVAAAGN
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01-NOV-1996 (TERMELTEL 01, Last sequence update)
01-NOV-1996 (TERMELTEL 19, Last annotation update)
NOSTILISIA CAMISBERG PRECURSOR:
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NCBL_TaxID-1402;
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Incerpor, IRROGO209; Poptidase_88 1.
PRINTS; PRO0721; SUBTILISTN.
PROSTIE; PS00116; SUBTILASE_ASP. 1.
PROSTIE; PS00116; SUBTILASE_RIS: 1.
PROSTIE; PS00119; SUBTILASE_RIS: 1.
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SEQUENCE 379 AA; 38925 MM;
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                     22 FIGEDXKVTVSAELEGLDESAAQVAATYVNNLGYDGSGITIGIIDTGIDASHPDLGGKVI 181
                                                                                                                      95 YVEEDH --VAHALAQTVPYGIPLIKADKVQAQGFKGANVKVAVLDTGIQASHPOL--NVV 150
                                                                                                                                                                                                                                                                                        LEI GGASFVAGGAYNTDGNGHGTHV----AGTVAALDNTTGVLGVAPSVSLYAVKVLNSSGSG 206
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NOV-1996 (TrEMBLrel. 01. Last sequence update)
01.DEC-2001 (TrEMBLrel. 19, Last emoctation update)
KERATINASE.
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accepts, Firmloutes: Racillus/Clostridium group;
Bacillus/Staphylococcus group; Bacillus;
*88.fak/Pb.442;
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295 VAAGNSGP--NTYTVGSPAAASKVITVGAVDSNDNIASFSSRGPTADGALKPEVVAPGVD 352
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229 GIKVLGADGSGSISTIIKGVEMAVDHKDKYGIKVINLSLGSSQSSDGTDSLSQAVHNAMD 288
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16.04: Score 548; Douer 54, 28; Score 548; DB 2; Length 376;

Matchae 184; Conservative 6; Mismatches 147; Indels 82; Gaps
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64 VFENHREKELAVR----VLELMGAKVRYVYHIIPALAADLK----VRDLLVISGLIGGKAKL 117 118 SCVRFIGEDYKVTVSAELEGLDESAAQVMATYVWNLGYDGSGTTIGIIDTGIDASHPDLG 177 87 PSVAYVEEDH -- VAHAYAQSVPYGVSQIXAPALHSGGYTGSHVXVAVIDSGIDSSHPDL - 143

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2 ISLLFALALIFTWARGSTSSA--OAAGKSNGEKKY-----IV 35  GenCore version 5.1.3 Copyright (c) 1993 - 2002 Compugen Ltd.

(without alignments) 2551.618 Million cell updates/sec US-09-841-553-5
34.28
1 MKGLKALILVILVLGLVVGS......YAYSTYGHADYOLKAVYYG 659 BLOSUM62 Gapop 10.0 , Gapext 0.5 Fitle: Perfect score: Scoring table: sedneuce:

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39 36	364.5	10.6	321	-	ISP_BACCS		P29140		
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- JUL-1990 (Rel. 01, Last sequence update) 15-JUL-1990 (Rel. 18, Last sequence update) Subtiliain BPN' precuraor (BC 3.4.21.62) (subtiliain Novo) (Alkaline SSOURNCE PROM N.A. STRAINANCH 23844, J. WEDLINER-SSOUSTS: DLUMAGH-6090391; VESBATER N. Thompson L.D., Rhodes C., Manner C., Negle J., Bacillus amyloliquefacions. Bacillus/Staphylococcus group; Bacillus/Clostridium group; Bacillus/Staphylococcus group; Bacillus. NCBL\_TRIDE1380; protease).

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J., Bobl. Chem. 24:1538-5711(4597).

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A. Wadopaws Ä-RAY CRYSTALLOGRAPHY (1.8 ANGSTRONS) OP MUTANT. MEDLINE®9057412; PUDHEG-2584274; PARTOLIERD M.W., MILLOW M., WOOD J.F., Dodd S.W., Hardman K.D., Rollsence M.L., Bryan P.M.;

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57 BEISTVIVFENHREKEIAVR----VLELHCAKVRYVYHIIPAIAADLK----VRDLLVISGL 110
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PROSIDE, PSGOLIJF, SUBFILASE, HIS; 1.
PROSIDE, PSGOLIJF, SUBFILASE, SER; 1.
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34.1%; Pred. No. 1.5e-24;
Lye 65; Mismatches 149; Indels 74; Gaps
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This SHISS-PACT only is copyright. It is produced through a collaboration than the through a collaboration the European that the through and the Best Outserion - the European Bioinformatica Institute. There are no restrictions on its
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                                                                                                                                        828 DYG-----LYRPDGMEVPPYQLDYLPAA------VSNPMPGNMELVMTGFNFAPLY 872
                                                                                                                                                                                                                          529 QYDYYSOGSLSQSGGGNPNPNPNPTPTTDTG7FTGSVN.DYWDTSDTFTNNVN---- 582
                                                                                                                                                                                                                                                                                         973 E----SGFLVRIHGVELTPS-----VMVINRTYLDINTEFSIEFNITNIY 913
                                                                                                                                                                                                                                                                                                                                                                                    383 .....SGATKIIGDLTF------DTSYNDLDLYLY 606
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MEDLINE-91282/83; Pubwad-2055048;
Van der Laan J.C., Gerritee G., Mullaners L.J.H., van dor Hoek R.A.,
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Martin 18, Maidar The Annahamana 18, van der twon J.,
Martins 18, Schipper Dr., Ansthan-buyad Y., van der twon J.,
The solution structure of serine forcesse pags from Bestilia.
Alconophilus presents a rigid fold with a flexible enberteck-obniding site, ',
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- STRUCKLIAN LOCATION SECRETED FAMILY SS. ALSO KNOWN AS THE
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Bacillus/Scaphylococcus group; Bacillus.
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01-AVC-1992 (Rel. 2), Last sequence update)
19-VUL-1998 (Rel. 36, Last ennotation update)
18-VUL-1998 (Rel. 36, Last ennotation update)
Bocilius alcalophilus.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     11arity 22.5%; Score 540.5; DB 1; Length 1398;
Conservative 103; Mismatches 251; Indels 455; Gaps
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            64 PH---MYLIKTKEGKLEEATTELEKLGABILDENRYLANLLVKIKPEKVKELNYISSLE 120
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        166 DTGIDASH-----PDLQGKVIGWVDF-----VNGR------190
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          179 DTGVDPNHPFLSITPDGRRKIIENKDFTDEGEVUTSPSFSRVVNGTLIINTTFQVASGLT 238
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Algrocorpaname in alkaline evironments, pp.187-194. VCH.
Mainteau (1991).
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- SINCELLINATY: MICONATOR PETTINASS PAMILIX SS; ALSO KNOWN AS THE
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                                                                                                                    SEGUENCE FOR THE ALTER AND STATE OF STATE STREET, AND STATE OF STA
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310scl. Blotschnol. Blochem. 56:1455-1460(1992).
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STRAIN-221 / ATCC 21522 / JCM 9139 / DSM 2512.
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Best Local Similarity 33.61
Matches 147; Conservative
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ACBI_TexID=79880;
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              use by non-poolit institutions as long as its content is in no way conting and this statement is not recoved. Usage by and for commercial entities requires a license episcement (See http://www.ls-sh.c//announce/or send so cash to licenseslate-shb.ch/
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Matches 147; Conservative 74; Mismatches 140; Indels 77; Gaps
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33.6%; Pred. No. 1.3
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173 173 CHA
326 326 CHA
380 AA; 38853 NW;
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EMBL, A13738; CAA01128.1:
PDB: A49778, A49778
PDB: 1A42; 15-ARR-98
MEROPS: 508.001:
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                                                                                                                                                                                                                                                                105 SIANGTGAASNGK--YKGMAPGAKLAGIKVLGADGSGSISTIIKGVEWAVDNKDKYGIKV 262
                                                                                                                                                                                                                                                                                                                          68 ---AGTVAALDNITGVLGVAAPRVSLYALVSGSGSGTYSALVSGTEMATON----GLDV 120
                                                                                                                                                                                                                                                                                                                                                                                                                      163 INLSLOSSQSSDGTDSLSQAVNNAMDAGIVVCVAAGNSQP--NTYTVGSPAAASKVITVG 320
                                                                                                                                                                                                                                                                                                                                                                                                                                                               321 AVDSHDRIASFSSRCPTADGRLKPEVVAPGVDIIAPRASGTSHGTPINDYYTKASGTSNA 380
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                                                                  36; Gaps
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               381 TPHYSGVGALILOAHPSWTPDKYKTALIETADIVAPKEIADIAYGAGRYNVYKA 434
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Bacillus/Stantidus group:
Bacillus/Staphylococus group: Bacillus.
NCBL_TAXID-86079;
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01-JUN-1994 (Rel. 29, Last sequence update)
12-DEC-1998 (Rel. 37, Last sequence update)
Subtiliain NAT precursor (EC 3.4.21.62)
                                         Matches 132; Conservative 36; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PRT; 381 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                STRAIN-NC2-1;
MEDLINE-93113095; PubMed-1369081;
Tohishi
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Pfam; PF00082; Peptidase_S8: 1.
PRINTS; PR00723; SUBTILISIN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  EMBL: D25319; BAR04989.1; -:
EMBL: S31909; AAC60424.1; -:
PIR: J40778; J40778.
HSSP: P07518; IMEE.
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Hosewing S., Gupow M., Pateria M., Fittus S., Stown S.,
Hosewing S., Gupow M., Pateria M., Fittus S., Stown S.,
Hosewing S., Hope M., Pateria M., Pittus S., Stown S.,
Hosewing M., Hope M., Pateria M., Pittus S., Hope M., Pateria M.,
Hosewing M., Pateria M., Pateria M., Pateria M.,
Hosewing M., Pateria M., Pateri
211 GSVSSIAGGLEWAGNN----GMHVANLSLGSPSPS---ATLEGAVNSATSRGVLVVAASG 263
                                                                                                                    299 NSGPMTYTVGSPAAASKVITVGAVDSHDNIASFSSRGPTAGGRLKPEVVAPGVDIIAPRA 358
                                                                                                                                                                                                                       359 SGTSWGTPINDYYTKASGTSMATPHVSGVGALILQAHPSWTPDKVKTALIETADIVAPKE 418
                                                                                                                                                                                                                                                                316 GST------YASLNGTSWATPHVAGAAALVKQKNPSHSNVOIRNHLKNTATSLGSTN 366
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Pred. No. 1.2e-23;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    STOURNEY.
STAILTON:
MEDIAM-CHITOGE; NABME-642008;
SEGON P.: OBSTINE W. MENUITISER C.;
MEDIAM-CHITOSE W. MENUITISER C.;
MEDIAM-CHITOSE W. MENUITISER C.;
MEDIAM-CHITOSE W. MENUITISER W. 
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Bacillus/Staphylococcus group; Bacillus,
NCBL_TaxID-1402;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SIME_MACET STANDARD: PRI; 274 AA. 100099. 2.14 Lag. 2.14 AA. 2.1-301-1986 (Rel. 0). Created) 21-301-1986 (Rel. 0). Last enquence update; 21-301-1986 (Rel. 0). Last enduence update; Subtilisin Dy (Rel. 34, 23, 62).
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                                                                                                                                                                                                                                                                                                                                                                    419 IADIAYGAGRVAVYKAIK 436
                                                                                                                                                                                                                                                                                                                                                                                                                              367 L---YGSGLVNAEAATR 380
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              203 DSTGSGQYSHINGIBHAISH----NABVINNSLG---GPTGSTALKTVVDKAVSSGIVV 255
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            194 CVAAGNSGP--MTYTVGSPAAASKVITVGAVDSNDNIASESSRGPTADGRLKPEVVAPGV 3S1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            61 TVIVFRNHREKEIAVRVLELMGAKVRYVYHIIPAIAADL---KVRDLLVISGLTGGKAKI. 117
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         118 SGVRFIQEDYKVTVSAR-LEGLDESAAQVHATYVHNLGYDGSGITIGITDTGIDASHPDL 176
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        92 PSVATVEEOH---IAHETAOSVPYGISOIKAPALHSQGYTGSMVKVAVIDSGIDSSHPDL 148
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            177 QGKVIGHYDFYNGRSYFYDD-HGHGTHVASIAAGTGAASNGK--YKGMAPGAKLAGIXVL 233
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     46 THSAMSSAKRED----VISEKGGKVOROPKYVNAAAATLDEKAVREL-----KKD 91
                                                                                                                                                                                                                                                                                            SHETILESIN NAW.
CHARGE RELAY SYSCEM (BY SIMILARITY).
CHARGE RELAY SYSTEM (BY SIMILARITY).
CHARGE RELAY SYSTEM (BY SIMILARITY).
DAED4B16ED18A092 CREC4;
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MAIN S.C., Shinde U., Li Y., Inouve M., Berman B.W.;
Jain S.C., Shinde U., Li Y., Inouve M., Berman B.W.;
Percycap Extredute of an autoparcossed Ser21Cys-subtilisin
Percycaptide complax at 2.0-A resolution 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  53; Mismatches 127; Indels 58;
| PROSERTE | PRODUCT | PRODUCT | PROSERTE | 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   15.3%; Score 52%; DB 1; Length 381; 37.9%; Pred. No. 7.68-23;
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Racteria: Tirritoutes: Bacillus/Clostridium group:
Bacillus/Stephylococcus group: Bacillus.
(881_RaxD-413)
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ROW(1894) SPT (REL) GL, CTORTED PRT 
20-MAR-1987 (REL) GL, Last sequence update) 
PG-MR-1981 (REL) GL, Last sequence update) 
Bubtillant B preserver (EC) 34.21.62), 
MAPE OR APR OR APR
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MEDLINE-84212198; PubMed-6427178;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Best Local Similarity 37.9%
Matches 145; Conservative
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SUBT_BACSU
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AND ADDITIONAL STATEMENT OF THE STATEMEN
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19.34, Score 933; Dg.1; Length 381;
Machine St. March 17.64, Pred. No. 9.74-23,
Machine 144; Conservative 54; Mismatches 127; Indels 58;
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                                                                                                                                                                                                                                       58; Gaps
                                                                                                                                                                                                                                                                                                                     46 TMSAMSSAKKKD----VISEKGGKVQKOFKYVNAAAATLDEKAVKEL------KKD 91
                    1318 CHARGE RELAY SYSTEM (S. S. ELILLARITY).
227 CHARGE RELAY SYSTEM (S. S. ELILLARITY).
251 S -> A (T.N. REF. 2).
252 S -> A (T.N. REF. 2).
354 W-3 Z 2310LDEZ 288 F (RGG.).
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Pred. No. 1.38-22;
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03.05511916 1 precursor (cd. 3.4.35.43).
03.05511916 1 precursor (cd. 3.4.35.43).
03.055119 secondomosphila.
03.0550110 yellowoopphila.
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                                                                                                                                                          21-UU-1986 (Rel. 01, Created)
01-DEC-1992 (Rel. 24, Lets sequence update)
18-DEC-1998 (Rel. 37, Lets annotation update)
Subtilisin amylosacchariticus precursor (RC 3.4.21.62).
                                                                                                                                                                                                                                                                           Bacillus subtilis var. emylosacchariticus.
Bacillus/Fimicutes; Bacillus/Clostridium group;
Bacillus/Staphylococcus group: Bacillus.
                                                                                                                      381 AA
                                                                                                                      PRT;
361 TYLG----NSFYYGKGLINVQAA 379
                                                                                                                      STANDARD:
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PIR, A41448, A41448.
HSSP, P04189, 1SCJ.
NEROPS, S08.001;
                                                                                                                 SUBT_BACSA
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this SWISS-POOT entry is copyright. It is produced through a collaboration between the Swiss intelligent of landscamming and the Bodic control the Engages Bioinformatics institute the supervised by the Bodic control through the Engages Bioinformatics institute there are once that the Swiss and the Computer of the Computer of the Computer of the Swiss and Swisses Bodic Bodic Swisses Bodic Swisses Bodic Swisses Bodic Swisses Bodic Bodic Swisses Bodic Swisses Bodic B
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CHARGE RELAY SYSTEM (BY STHILARITY).
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STRAIN-AN-101 / JUM 9161;
STRAIN H. Akiba T. Horikoshi K.;
Takami H. Akiba T. Horikoshi K.;
Theracterization of an alkaline protesse from Bacillus sp.
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24BF004F9E3E8474 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Takami H., Kobayashi T., Aono R., Horikoshi K.;
Submitted (AUG-1999) to the EMBL/GenBank/DDBJ databases
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33.1%; Pred. No. 5.7e-22;
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                                                                                                                        62 VIVFENHREKEIAVRVLELMGAKVRYVYNIIPAIAADLKVROLLVISGLTGGKAKLSGVR 121
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                                                                                                                                                                                                                                       GWVDFVNGRSYPYDDNGHGTHVASIAAGTGAASNGK--YKGMAPGAKLAGIKVLGADGSG 239
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             80° Gaps
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                                                                              3 OSLKYWVLSTVAL-LPMANPANASEEKKETLIVVEP------EEVSA 42
                                                                                                                                                             43 QSVEESY-----KDPOVIHEFEEIPVIHABLTKKELKKLK-----KDPNVK 82
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SLOWA A., Ruío G. H. Jr., Theraderjossy;
SLOWA A., Ruío G.A., Jr., Theradulk K.A., Dwyer M., Milson S.W.
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Matches 144; Conservative 80; Mismatches 131; Indels
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01-DEC-1992 (Rel. 24, Last sequence update)
18-0CT-2001 (Rel. 40, Last ennetation update)
NHOW CASTGROGALIJAR PICHESSE VPR PRECUESOR (EC 3.4.21.-).
VPR OR IPR-458.
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207 KGY-DEVDNDYDPKETFTGDPRGEATDHGTHV----AGT-VAANGTIKGVAPDATLLAYR 260

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42.8%; Pred. No. 1.18-21;
tive 35; Mismatches 98;
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552 PKMSVBOIKAAIHNTA--VTLKDSDGEVYPHNAQGAGSARIMNAIKADSL----- 599
                                                451 DKGSATHTFDVSGATFVTATLYWDTGSSDIDLYLYDPNGNBVDYSYTAYYGFEKVGYYNP 510
                                                                                                -----YSPGSYSYGTFLKENGNETKNETF7IENGSSIRKSTLEYSFNGSGI--S 647
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                                                                                                                                                                                                                                                                                             687 REGGKTVAKVPTLLIVKEPDY---PRVISVSEGS--VQGTYQIETYLPAGAEELAFLV 741
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    01.AFR-1988 (Rel. 07, Created)
01.AFR-1988 (Rel. 07, Last Sequence update)
14.CCT-2011 (Rel. 40, Last annotation update)
Subfillsin (EC 3.4.21.62) (Alkaline mesentericopeptidase).
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                                                                                                                                                                                                                                                                                                                                                                                        YDSNLDPAGQAGIYKNQDKGYOYFDWDGTINGGIKLPA-GEYYLLAYA 788
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Mecillus pumilus (Bacillus mesentericus).
Bacteria: Firmacuces; Bacillus/Clostridium group;
Bacillus/Stophylococcus group; Bacillus.
KGBL_BAXID-1408.
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Indels 37; Length 275;

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From Protest, Peptides 29; 1.
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Sectitists (EC 3.4.21.62) (Alkaline processe).
Sectilus Serves.
                                                                                                                                                                                                                                                             Bacteria: Pirmicutes; Beclilus/Clostridium group;
Beclilus/Staphylococcus group; Beclilus.
NGBL_TaxID=1467;
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COMPARE 13.1 A
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Venero T., Variant T., Matanaka T., Suaki A., Ashida T.,
Venero T., Kaini T., Matanaka T., Suaki A., Ashida T.,
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Strofcure of S. news Alkalian Section protease (Myprofesse) from
Neta Crystaliogs. O Silish-206(1955).
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Matches 122; Conservative 45; Mismatches 92; Indels 37;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             14.4%; Score 494.5; DB 1; Length 269; 41.2%; Pred. No. 2.3e-21;
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Betilus sp. (strain KSH-Xi6).
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Betilus sp. (strain SH-Xi6).
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES Result

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A/Gene: aprx C;Superfamily: subtilisin homology F:146-398/Domain: subtilisin homology <887>

. Ouery Metch 20.1%; Score 688; DB 2; Length 442; Best Local Smiletty, 7974, Pred; No. 1.76-20; Indels 44; Gaps Metches 167; Conservative 78; Hismatches 137; Indels 44; Gaps 43 TPGLERKI -- OKLNPNEEISTVIVFENHREK -- - EIAVRVLEL-NGAKVRYVYHIIPAIA 96 35 PPCFLHKFPETKLQNRKNHSVIIFFEBGCHETGFOMAGEVLQNEKRSKLKSFPHKINGCS 94

95 AE-----V7PSALHSLLSECSNIR------KVYLNREVKALLDTATEASHAKEVVRNGO 142 97 ADLKVRDLLVISGL7GGXAKLSGVRF1QBDYKVTVSAELEGLDBSAAQVM-ATYVHNLG- 154 ô g

155 -YDGSGITIGTID7GIDASHPDLOGKVIGHVDFVNGRSYPYDDHGNGTHVASIAAGTGAA 213 143 TLICKGVIVANVDTGI-YPHPDLEGRIGFADWNQXTEPYDDNGHGTHCADVASSGAS 201 214 SNGKYKGMAPGAKLAGIKVLGADGSGSISTIIKGVEMAV----DNKDKYGIKVINLSLGS 269 202 SSGQYRQPARANLIGVWVLWQGSGTLADIIECVENCTQYNEDNPDE-PIDIMSMGGG 260 ô g ò

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A:Residues: 108-162, PM', 165-167, D', 169-194, SA', 197-204, DA'. 207-264, ST', 267-357,
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270 S---OSSDOTDSISOAYNNANDACIVOCYAAGNSCONTXYVGSPAAAAKTIVOKAVOSN-325
261 DALRYDHOODD VAANDEMASACIVOCYAANNGODSOTTASPGUSERVIIVOKUDSNH 320
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08 KYVGDIEYRTPELYATEPWIRPPVSGSVILENNTEFVLRVKYDVEGLEPGLYVGRIIIDD 767
                                                                         68 PTTPVIEDGILNTIVIPEKETPENNYTLIWYDINGPRNYTHHFTTVPEGVDVLYAMTIYW 827
                                                                                                                                                                                                                                              474 DIGSSDIDLYLYDPNG-----NEVDYSTTAYYGPERYGYYNPTAGTWTVKVVSYKGAANY 528
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                                                                                                                      256 AAAAGREGSSGSTSTVGYPAKYPSTIAVGAVISSNORASFSSVGSELD-----VMAPQV 309
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                                                          223 SPHVAGAAALILSKYPTLSASQVRNRLSSTATNLGD----SFYTGKGLINVEAA 272
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IGHVDFVNGRSYPYDDHGHGTHVASIAAGTGAASNGK--YKGHAFGAKLAGIXVLGADGS 238
                                                                                                155 RGGASPVPGEPSTODGRGHGTHV----AGTIAALNNSIGVLGVAPARELYAVKVLGASGS 210
                                                                                                                                                                                                                                                                                                                      239 GSISTIIKGVEMAVDHKDKYGIKVINUSLGSSQSSDGTDSLSQAVHNAHDAGIVVCVAAG 298
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J. Biol. Chem. 22, 7999-7964, 1389-7964, 1389-747118; Roquiment of pro-sequence for the production of active subtilisin E in Esc.
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A. Cross-references: GROKI441: NID: 9143665; PIDN: AAA72814.1; PID: 9143666
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15.2a, bcore sau, co. 1, 18.2a, Best Local Similarity 37.3a, Pred. No. 2.2a-2;
Matches 143; Conservative 55; Mismatches 127; Indels
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1201 GACAAGGTGAAGACGGCCTCA7CGAGACCGCCGACA7AGTCGCCCCCAAGGAGATACCG 1260 GACATOCOCTACOGTUCGGGTAGGTGAACGTCTACAAGGCCATCAAGTACGACGACTAC 1320 1121 OCCANGETERACTERACTGGCTCCGTCGCCGACAAGGGAAGCGCCACCGACCACTTCGAC 1380 021 AGGCTCAAGCCGGAAGTCGTCGCCCCCGGCGTTGACATCATAGCCCCGCGCGCCAGCGA 1080 1141 ACCCCCACGITICSGGCGTTGGCGCGCTCATCCTCCAGGCCCACCCGACTGGACCCGG 1200 840 841 CAGGCGGTCAACAACGCCTGGGACGCCGGTATAGTAGTGCTGCGTCGCCGCCGGCAACAGC 900 GGGCCGAACACCTACACCGTCGGCTCACCCGCCGCGCGAACGTCATAACCGTCGGT 960 540 661 ATGGTCCAGGAGCTAAGGTGGCGGGAATTAAGGTTCTAGGTGCCGATGGTTCTGGAAGC 720 781 ANGSTORFTANTOTFFCTCTFGGTTCANGCCNGAGCTCCGACGGAACCGACTCCTCAGT 840 421 Tetgengeteragitatisgeracttagetttggaacttsggafatgatggttetggaate 480 42) PCPGCAGCTCAAGTTATGGCAACTTAGGTTTGGGAATATGATGGTTCTGGAATC 480 481 ACANTAGGAATANTTGACACTGGAATTGACGGTTCTGATCGAGGATCTCCAAGGAAAGTA 540 1261 GATHTAGCTAGGGGGGGGGGGTTANTGGATAGAAGGCTATAAAGTAGAAGGTTAAAGTAT 241 AGGCTCCANAGTAGGTATGTACCCATATATACCCCCAATAGCTCCCAATAGCTCCCAATAACT GTTAGAGACTTACTAGTCATCTCAGGTTTTAACAGGGGGTAAAGCTAAGCTTTCAGGTGTT 301 GTFAGAGACTTACTACTACTCACCTCAGGTTTAACAGGGGTAAAGTTAAGGTTTAACAGGGGTAAAGTTAAGGTTAACAGTGTT

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227 GASTICITGAGITANTGGGTGCAAAAGTTAGGTATGTGTACCATATTATACCGGCAATAG 286
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8 8	1984 UCHUCUACHUCHICANOSIUS CONTROCOTOTAGGACCAACGGGAACGAGGTGACTACT 1483		517 CATCCAGATCTCCAAGGAAA
	COGGCTCGAGCGACCTCTACGTCTACGACCCCAACGGAACGGAACGGAACGAGCTTCACTACT		121 CATCCAGATCTCCAAUGAA
	CCTRCACCGCTACTACGCCTTCGAGAAGGTCGGCTACTACACCCGAACCGCGGAACCT	3 8	181 CCATACGATGACCATGGACA
- -	1484 CCPACACGCCTACTACGACTTCGAGAAGGTCGGCTACTACACCCGACGGCGGAACCT 1543	ò	637 GCANGTANTGGCANGTACA
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	ATACTTCCTACAACGACCTCGACCTCTACCACCCCAACGGCANCCTCGTTGACA	è é	877 GTCTGGGTCGCCGCCGGCGGCG
90		3 8	937 GCGAGGAAGGTGATAAGG
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q q		č	997 AGCAGGGACCGACCGOGG
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	TACK GOVERNMENT OF THE PROPERTY OF THE PROPERT	οy	1057 ATCATAGCCCCGCGCGCC
	1964 TCGTCTACTACGC 1977	g	661 ATATTGCTGCCAGAGCA
8	1404 1401014014014014014014014014014014014014	ó	1117 AAGGCCTCTGGAACCAGC
RESULT 4		윤	721 GCAGCTCCTGGGACATCA
ARZ01146 LCCUS		ŝ	1177 CAGGCCACCCGAGCTGG
ACCESSION	AR20146 7 01:20252034	đ	781 CAAGCACACCCGAGCTGG
KETWORDS		63	1237 ATAGTCGCCCCCAAGGAG
SOURCE	MISH	a	841 ATCGTAAAGCCAGATGAA
REFERENCE	Uncassited.  1 (base) 1 to 1236)  1 (base) 1 to 1236)  1 (base) 1 to 1236)	03	
Į,	TITLE Thermostable protesse communication of the communication of 6358726-A 2 19-MAR-2002;	g	901 AAGGCTATAAACTACAA
PEATURES	90	6À	
23.58	/organism="uoknown"	8	961 GGCAGCCAAACICACUA
ORIG		δ	1417 IGGACACGGGCTCGAG
38	Ouery Match 42.3%; Score 837; DB 6; Length 1435; Best Local Similarity 80.1%; Pred. No. 4e-105;	a	1021 TGGGACAATGCCAATAG

CGACTACGCCAAGCTCACCTTCACCGCGTCCGTCGCGCGACAAG 1356 CTTCGACGTCAGCGGCGCCACCTTCGTGACGGCCACCTCTAC 1416 CAGCGGAACCAGCATGGGCACCCCGATAAACGACTACTACACC 1116 GACCCCGGACAAGGTGAAGACCCCCTCATCGAGACCGCCGAC 1236 GATAGCGGACATCGCCTACGGTGCGGGTAGGGTGAACGTCTAC 1296 NAACTATGCAAAGCTAGTGTTCACTGGATATGTTGCCAACAA 960 AAGTGGAACTAGCATGAACGAATTAATGAGTATTAACAA 720 OFFCGEEGCAGTTGACAGCAACGACAACATCGCCAGCTTGTGC 996 ACTEGRACCCTTGACAACTATATAACAAGCTCCCA 600 AAGGAATGGCTCCAGAGCTAAGCTGGGGGGAATTAAGGT 696 GGBAGCATATCTACTATAATTAAGGAGTTGAGTGGGCCCTT 756 AAAGTAATTGGGTGGGTAGAYTTGTCAATGGTAGGAGTTAT 576 ANTOACTCACCACAACTATOCAACTTACGTTGGAAC 456 GAATCACAATAGGAATAATTGACACTGGAATTGACGCTTCT 516 GAATCACAATAGAATAATTGACACTGGAATTGACGCTTCT 120 0; Mismatches 245; Indels

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Linear PAT 04-DEC-1998
                                                                   478 GGACCGACCGCGGACGGAAGGCTCAAGCCGGAAGTCGTCGCCCCCGGCGTTGACATCATA 537
                                       538 OCCOCGCGCGCGCGCAACCACGCATGGCGCCCCCGATAAACGACTACTACAACAAGGGC 597
                                                                                                                                                             1243 GCCCCCAAGGAGATAGCGGACATCGCCTACGGTGGGGTAGGGTGAACGTCTACAAGGCC 1302
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Hitto.M., Yamemoto.K., Horishita.M., Asada.K., Tsunasawa,S. and
Kato.I.
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Boner, Cocal Statistry 86-14, Perecinc. 4-24-59,
Matches 485; Conservative 0; Missetches 75; Indete 3: Caps
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Patent: US 5756339-A 11 26 HAY-1998;
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9.74, Score 131.2; DB 8; Length 3U30;
PRet. Cocal Similarity 48.3%; Pred. No. 5.5e.17;
Matches 535; Conservative 0; Mismatches 573; Indels 0;
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Mammalia: Eutheria: Frimates; Catarrhini; Hominidae; Homo.
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The DNA sequence of human chromosome 21
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	/close="KUD45D10"		/rpt_type=TANDEN
	/notes Accession No. AP001047	not feet Treaded	/note- (GGGGA)n
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	/chronosome=21	- Constant	/note-"MIR"
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	/clone_lib="Kelo BAC library"	repeat_region	15947. 16036
	/notes Accession no. Arototes		/rot family-"LINE/L2"
201108	/organism- Nono sapiens		
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sonrce	222082. 321579	_	/rpt_family="Simple_repeat"
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AC005918.13 GI:14550316 Homo sapiens SQURCE

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16598s: contig of 145185 bp in length.
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ö .004 CTGGAGGCGGGCGGTCGAGAAGCTGTCCGCCGAGAAGGGCATCCTGTTGGCGATCGCGGGG 1063 412 CTGGATGAGTCTGCAGCTCAAGTTATGCCAACTTAGCTTTGGAACTTGGGATATGATGGT 471 599 chodacorcorcococadarcocacicocadoscaros de cocococarocados ese 172 ICTGGAATGACAATAGGAATAATTGACACTGGAATTGACGCTTCTCATCCAGATCTCCAA 531 719 GGCAGGTGACCGCTCAAGAACTTCACCTCCGCCCACCGCTGACGTGGTC--- 775 944 chadaceccannicatehannanacredecagenicanencecessianecaneces 1003 Ouery Match 85.54; Score 131.2; DB 1, Langth 3346; BGst Local Similarity 57.04; Perfox No. 84-09; Marches 415; Conservative 0; Mismatches 388; Indels 33; Cape 532 GGAAAAGTAATTGGGTGGGTAGATTTTGFCAATGGTAGGAGTTATGCATAGGATGACCAT 591 652 TACANGGGAATGGCTCCAGGAGCTAAGCTGGGGGGAATTAAGGTTCTAGGTGCCGATGGT 711 712 TCTGGANGCATATCTACTATAATFAAGGGAGTTGAGTGGGCCGGTTGATAACAAAGATAAG 771 896 TTGGGGACANGTCGGGGATCCTCGCGGGATGGATGGGCGCGCGCG-------CC 943 772 TAGGGAATTAAGGTCATTAATGTTTGTTTGGTTCAAGCCAGAGGTCCGAGGGAAGCGAC 831 832 TCCCTCAGTCAGCCGTCAACACGCCTGGGACGCGGGTATAGTAGTAGTCGCGGCGGCC 891 8 ò 윱

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SUMMARIES

		No. Score Match Length DB ID Description		BM1B1884 £v51b11.y	AL193990 Tetraodon	B67199 CpG0015B Cp	2		AVYSBOOK AVYSBOOK
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## ALIGNMENTS

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Matches 1991 Conservative 20; Mismatches 196; Indets 0; Gape
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/db_xref="taxon:4577"
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1.94; Score 76.4; DB 17; Length 750;
Set Local Smalarity 54.4; Pred. No. 19-07; Indels 14: Gaps Matches 157; Indels 14: Gaps Matches 150; Conservative 0; Mismatches 157; Indels 14: Gaps
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A MAC FOLICIA and Debus. A. A. Mac Folicia and Debus. A. Mac Folicia 
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Seq primer: OctafffaGGTGACACTATAG
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/note=7emoscope sequence ID : COAG1998B1ZtP1-end : 77*
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Pred. No. 5.3e-07;
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Matches 259; Conservative 18
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Tetrackon nigroviridis DNA sequence
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Tsunasawa S, Yamemoto K;
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Result

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                                                                                                                                                            Protease: research reagent; thermal stability; pyrococcus furlosus; ss.
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                                                                                                                                Pyrococcus furiosus PPUS protesse coding sequence.
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RESULT 2
AA185593
ID AAT85695 Standard: DNA; 1962 BP.
                                                                                                                                                                                                Pyrococcus furiosus DSH-3638
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                                                                      1441 GATCTTFACCFCTACGATCCCAATGGAAACCAGGTTGACTACTCTTACACGGCCTACTAT 1500
                                                                                                                                            1501 GGCTTCGAGAAGGTCGGGTACTACAACCCGACCGCGGAACCTGGACGGTUAAGGTCGTC 1560
                                                                                                                                                                                   Recombinant hyperthermostable proteases from Pyrococcus furiosus or and generally it. for large scale production of the protease for mindistrated use.
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Taunasawa S, Yamamoto K;
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Recombinant hyperthermostable protease from Pyrococcus furiosus . and gene encoding it, for large scale production of the protease for Hyperthermostable; protease; thermophilic; bacterium; subtilishn; additive; drug; vaning agent; foodstuff; chemical synthesis; da Takakura Shimojo T, Disclosure; Page 53-54; 82pp; Japanese Asada K, Kato I, Morishita M, AAX05926 standard: DNA: 1977 BP

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1653 CCCGAACCCCAACCCCGACCACCCAACCCTCAACCCTCACCGTTCCGTTAACCTTAACCCTTAACCCTTAACCCTTAACCCTTAACCCTTAACCCTTAACCCTTAACCCTTAACCCTTAACCCTTAACCCTTAACCCTTAACCCTTAACCCTTAACCCTTAACCCTTAACCCTTAACCCTTAACCCTTAACCCTTAACCCTTAACCCTTAACCCTTAACCCTTAACCCTTAACCCTTAACCCTTAACCCTTAACCCTTAACCCTTAACCCTTAACCCTTAACCCTTAACCCTTAACCCTTAACCCTTAACCCTTAACCCTTAACCCTTAACCCTTAACCCTTAACCCTTAACCCTTAACCCTTAACCCTTAACCCTTAACCCTTAACCCTTAACCCTTAACCCTTAACCCTTAACCCTTAACCCTTAACCCTTAACCCTTAACCCTTAACCCTTAACCCTTAACCCTTAACCCTTAACCCTTAACCCTTAACCCTTAACCCTTAACCCTTAACCCTTAACCCTTAACCCTTAACCCTTAACCCTTAACCCTTAACCCTTAACCCTTAACCCTTAACCCTTAACCCTTAACCCTTAACCCTTAACCCTTAACCCTTAACCCTTAACCCTTAACCCTTAACCCTTAACCCTTAACCCTTAACCCTTAACCCTTAACCCTTAACCCTTAACCCTTAACCCTTAACCCTTAACCCTTAACCCTTAACCCTTAACCCTTAACCCTTAACCCTTAACCCTTAACCCTTAACCCTTAACCCTTAACCCTTAACCCTTAACCCTTAACCCTTAACCCTTAACCCTTAACCCTTAACCCTTAACCCTTAACCCTTAACCCTTAACCCTTAACCCTTAACCCTTAACCCTTAACCCTTAACCCTTAACCCTTAACCCTTAACCCTTAACCCTTAACCCTTAACCCTTAACCCTTAACCCTTAACCCTTAACCCTTAACCCTTAACCCTTAACCCTTAACCCTTAACCCTTAACCCTTAACCCTTAACCCTTAACCCTTAACCCTTAACCCTTAACCCTTAACCCTTAACCCTTAACCCTTAACCCTTAACCTTAACCCTTAACCCTTAACCCTTAACCCTTAACCCTTAACCCTTAACCCTTAACCCTTAACCCTTAACCCTTAACCCTTAACCCTTAACCCTTAACCCTTAACCCTTAACCCTTAACCCTTAACCCTTAACCCTTAACCCTTAACCCTTAACCCTTAACCTTAACCCTTAACCTTAACCTTAACCTTAACCTTAACCTTAACCTTAACCTTAACCTTAACCTTAACCTTAACCTTAACCTTAACCTTAACCTTAACCTTAACCTTAACCTTAACCTTAACCTTAACCTTAACCTTAACCTTAACCTTAACCTTAACCTTAACCTTAACCTTAACCTTAACCTTAACCTTAACCTTAACCTTAACCTTAACCTTAACCTTAACCTTAACCTTAACCTTAACCTTAACCTTAACCTTAACCTTAACCTTAACCTTAACCTTAACCTTAACCTTAACCTTAACCTTAACCTTAACCTTAACCTTAACCTTAACCTTAACCTTAACCTTAACCTTAACCTTAACCTTAACCTTAACCTTAACCTTAACCTTAACCTTAACCTTAACCTTAACCTTAACCTTAACCTTAACCTTAACCTTAACCTTAACCTTAACCTTAACCTTAACCTTAACCTTAACCTTAACCTTAACCTTAACCTTAACCTTAACCTTAACCTTAACCTTAACCTTAACCTTAACCTTAACCTTAACCTTAACCTTAACCTTAACCTTAACCTTAACCTTAACCTTAACCTTAACCTTAACCTTAACCTTAACCTTAACCTTAACCTTAACCTTAACCTTAACCTTAACCTTAACCTTAACCTTAACCTTAACCTTAACCTTAACCTTAACCTTAACCTTAACCTTAACCTTAACCTTAACCTTAACCTTAACCTTAACCTTAACCTTAACCTTAACCTTAACCTTAACCTTAACCTTAACCTTAACCTTAACCTTAACCT
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1173 CCFCCAGGCCACCGGAGCTGGAGCCGGCAAGGTGAAGACCGCCCTCATCGAGACCGC 1232
                                                                                                                    1233 CGACATAUTOGCCCCCAAGGAGATAGCGGACATCCCCTACGGTGCGGGTGAACGT 1292
                                                                                                                                                                                                                                                                                                                                                      1353 CHAGGGHAGCGGCHCCCHCHCCTTCGACGTCHGCGGCGCCACCTTCGTGACGGCCACCT 1412
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                                                                                                                                              421 CONCATACTCGCCCCCANGOAGATAGCGGACATCGCCTACGGTGGGGGGTGAAGGT 480
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100.0%; Pred. No. 4 Ne-240;
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Matches 1165; Conservative 0; Mismatches
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                                                                                                                          AAT85677 standard; DNA; 1859 BP.
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Tsunasawa S, Yamamoto K;
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997 AGCAGGGACCGACCGCGGACGGAAGGCTCAAGCCGGAAGTCGTCGCCCCCGGCGTTGAC 1036
                                                                                                                                                                                               057 ATCATAGCCCCCCCCCCCAGCGGAACCAGCATGGGCACCCCGATAAACGACTACTACACC 1116
                                                                                                                                                                                                                                                                         1117 AAGGCCTCTGGAACCAGCATGGCCACCCGCAGGTTTCGGGGCGTTGGCGGTCATCCTC 1176
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                                                601 AGCAGAGGGCCAACTGCAGGAGGCCAGACTAAGCCCGAGGTFGTTGCTCCAGGAAACTGG 660
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1366 GTGTTTACACAACAACCAACATACTTACCTTACCATCAACCAAACGTT 1425
1366 GTGTTTACACAAACAACAACAACATACTTACACTTACAATCAAACAAAACATT 1425
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76:5%; Pred. No. 3:3e-198;
Live 0; Mismatches 357; Indels 15; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         817 TCCGACGGAACCGACTCCCTCAGTCAGGCCGTCAACAACGCCTGGGACGCCGGTATAGTA 876
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                                                                                                                                                                                                                                                                                                                                                                                       Processe(a) and genes encoding them obtained from Thermococus syronococus strains - have arranged by themal stability and useful industrially and as research respons.
1..1566
//rag- a.
//rasi_axcept- (pcs: 1282..1284, as: xec)
/note- *xas- Gly, Val*
                                                                                                                                                                                                                                                                                 Morishita K, Takakura H;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                Claim 7; Page 90-91; 159pp; Japanese.
                                                                                                                                                                                                                                                                             Asada K, Kato I, Mitta M,
Tsunasawa S, Yamanoto K;
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                                                                                                                                                                                                       95JP-0323285.
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Matches 1208: Conservative
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                                                                                         H09721823-A1.
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997 ACCAGGGACCGACCGACGGAAGGCTCAAGCCGGAAGTCGTCGCCCCCCGGGGTTGAC 1056
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Recombinant hyperthermostable protesse from Pyrococcus furiosus 'and gene encoding it, for large scale production of the protesse for
                                                                                                                                                                                                                                                                          Hyperthermostable; protesse; thermophilic; bacterium; subtilisin; additive; drug; washing agent; foodstuff; chemical synthesis; ds.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 837; DB 20; Length 1236;
Pred. No. 7.4e-170;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match 42.3%; Score 637; DB 90; Length 123; Best Local Statistity 60:1%; Pred; No. 7.46-170; Indels watchise 94; Conservative 0; Mismatches 245; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 1236 BP: 368 A; 251 C; 309 G; 308 T; 0 other:
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                                                                                                                                                                                                                                Hyperthermostable protease fragment encoding DNA.
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                                                                                                      AAX05920 standard; DNA; 1236 BP.
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                                                                                                                                                                                               06-MAY-1999 (first entry)
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P-PSDB; AAW94836.
                                                                                                                                                                                                                                                                                                                                           Pyrococcus furiosus.
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                                                                                                                                                          AAX05920;
                                                                      RESULT 8
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523 GATCTCCAAGGAANAGTAATTGGGTGGGTAGATTTTGTCAATGGTAGGAGTTATCCATAC 582
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                                                                                                                                                                                                                                                                                                                                                                                                       118 AACTCCAGTACATAGGCGTCGCCCCCGGCGCAAGCTCGTCGGCGTCAAGGTTCTCGGT 177
                                                                                                                                                                                                                                                                                                                                                                                                                                            703 GCCGATGGTTCTGGAAGCATATCTACTAATTAAGGGAGTTGAGTGGGCCGTTGATAAC 762
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777 ACCANGTRICGACGACTACGCTCACCGGARCGCGCGCGACAAGGGAAGG 836
                                                                                                                                                                                                                                                                                             1 GATCHCAAGGGCAAGGTCATAGGCTGGTACGACGCGGTCAACGGCAGGTGGACCCTAC 60
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                Pyrococcus furlosus Apperithermostable protesse gens - useful for
recombinant prodn. of Apperithermostable protesso
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                                                                                      the investion states to the hyperthermostable protease of 
yrococcas furional is profine, as a reconstraint protean 
in trestorenses are corrections the protease game 
ArX08131, A second DA second or the protease game 
ArX08131 and Lts encoded protein in AMST009.
                                                                                                                                                                                                          33 94; Score 659.8; DB 17; Length 898;
86.34; Pred. No. 4.7e-134;
11ve O: Mismatches 118; Indels 6;
                                                                                                                                                                            Sequence 898 BP: 192 A; 299 C; 266 G, 130 T; 11 other:
                                                           Example 3: Page 52-53: 85pp; Japanese
                                                                                                                                                                                                                       Best Local Similarity 86.3
Matches 780; Conservative
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/note- base n at position 587 is not identified
in the specification
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/notem 'base n at position 796 is not identified
in the specification'
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//ode= in the specification"
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//note- 'base n at position 859 is not identified
in the specification*
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                                                                                  Proteass; hyperthermostable; thermostability; ss.
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                                                                                                                                        location/Qualifiers
                                                        Hyperthermostable protease gene
                          10-MAY-1996 (first entry)
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                                                                                                                    Pyrococcus furiosus.
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13-JUN-1994;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          21-DEC-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           05-JUN-1995;
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AAT08131
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us-09-841-553-6.rng

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3; Gaps
                                                                                                                                                                                                                                                                                            732 AATTAAGGGAGTTGAGTGGGCCGTTGATAACAAAGATAAGTAGGGAAFTAAGGTCATTAA 791
                                                                                                                                                                                                                                                                                                                                                                                                                    Pyrococcus furiosus hyper:thermostable processe gene - useful for recombinant produ, of hyper:thermostable protesse
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       The invention relates to a gene (AMT08141) that codes for a hyperthermortable protesse (AA88707) of Pyrococcus Lutiosus. 2 DNs sequences (AA8707) are provided encocing peptides (AA87010-11).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Example 4; Page 56-67; 85pp; Japanese
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      792 TCTTTCTCTTGGTTCAAGCCAGAGCTC 818
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      481 TCTTTCTCTTGGTTCAAGCCAGAGCTC 507
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAT08134 standard; DNA; 564 BP.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAT08134;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          312 ACTAGECATCHCAGGTTTAACAGGGGTAAAGCTAAGCTTTCAGGTGTAGGTTTATCCA 371
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                protease; research reagent; thermal stability; pyrococcus furiosus; 85.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1 ACTACTOR TO THE STANDARD OF TANGENT AND 
     O; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Protesse(s) and genes encoding them Obtained from Thermococous and pyrococus strains - have extremely high thermal stability and ore useful industrially and as rosearch respents
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llarity 100.04; Pred, No. 3.1e-99;
Conservative 0; Mismatches 0: Indels o
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Asada K, Keto I, Mitta M, Morishita M. Takakura H;
Tennasawa S, Yamanoto K;
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                                                                                                                                                                                                                                                                                                                                                                                                                                    Pyrococcus protease fragment coding sequence.
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2..505
/*tag= a
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p-PSDB; AAM24127.
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es 507, Conserv
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   3; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               715 GGAJGCATATCTACTATAATTAAGGGAGTTGAGTGGGCCGTTGATAACAAAGATAAGTAC 774
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                                                                                                                                                                                                                                                                                                                                                                                                                                             381 GPGGGTGCAGTGAGTGCAGCAACGACAACATGGCCAGCTTCTCCAGCAGGGGACGCGCG 430
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11.6%; Score 427; DB 18; Length 564;
Bast Local Similarity 86.1%; Pred, No. 4.50-82;
Matches 485; Conservative 0; Mismatches 75; Indels ;
                                                                                                                                                                                                                                                                           Sequence 564 BP; 121 A; 195 C; 161 G; 87 T; 0 other;
                              useful industrially and as research reagents
                                                                      Disclosure: Page 110-112: 159pp: Japanese.
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595 CATGGAACTCATGTAGTTCAATAGCAGCTGCTAGTGGAGCAGCAACTAATGGCAAGTAC 654
                                                                                     555 AAGGGAATGGCTCCAGGAGCTAAGCTGGCGGGAATTAAGGTTCTAGGTGCCGATGGTTCT 714
                                                                                                               775 GGAATTAAGGTCATTAATGTTTGTCTTGGTTCAAGGCAGAGGTCCGACGGAACGGACTCC 834
                                                                                                                                                                                                                                                                                          181 GGGTANGGGTGATCAGCTGTCCCTCGGCTCCTCCAGAGCTCCGACGGAGCCGACTCC 240
                                                                                                                                                                                                                                                                                                                                                       835 CTCAGTCAGGCCGTCAACAACGCCTGGAGGCCGGTATAGTAGTCTGCGTCGCGCCGGC 894
                                                                                                                                                                                                                                                                                                                                                                                GACGGAAGGCTCAACCCGGAAGTCGTCGCCCCGCGCGTTGACATCATAGCCCCCGCGCGCC 1074
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Proteass; research reagent; thermal stability; thermococcus celer; se.
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Pyrococcus strains - have extremely high thermal stability and ste
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Naeda X. Xato I. Mitta N. Morishito M. Takakura H.
Feunasawa S. Yamamoto K:
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Cocation/Qualiflers

P-PSDB: AAW24126

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512 CTTCTCA RCCKGARTCTCCANGGAAAAGTAANTGGGGGGGGGAGAATTTCTCAAACGAGGAA 571
1161 CAAACAGCGAATTGAAAGGGAAAGTCAAAGGGGGTGGTACGACGGCAAGGGCAGTTA20
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       455 ACT---TGGGGATNTGATGGTTCTGGAATCACAATAGGAATAGACACTGGAATTGACG 511
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             167 acgaggaratcagcacagtaattgtatattgaraaccatagggaraaggarattgcagtaa 226
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                816 ACCAGAAAAGGACACCATAARGTICGGAACTACGAAGACAGGAGAGAGAGGGGGTTA 875
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          227 GAGTTCTTGAGTIANTGGGTGCAAAAGTTAGGTATGTGTACCATATTATACCCGCAATAG 286
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            876 AGSTACTGAGGGCCCATGGGCGCCCAGGTCAAGACTCCTACAAACCCTGCTGTGG 935
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                107 AGAAGAACTATGGTCTGCTAACGCCAGGACTGTTCAGAAAATTCAAAAATTGAAAATTGAATCCTA 166
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                protease: research reagent; thermal stability; thermococcus celer; ss
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Processe(s) and genes encoding them obtained from Thermococous and 
pyrococous strains - have extremely high thermal stability and are 
useful industrially and da research respents
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Asado K, Kato I, Mitta M, Morishita M, Takakura H;
Teunasawa S, Tahamoto K;
                                                                  Thermococcus protease fragment coding sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Disclosure; Page 114-115; 159pp; Japanese.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          96WO-JP03253.
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                                                                                                                                                                                                                                                                                     Thermococcus celer DSM-2476.
20-APR-1998 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           HPI; 1997-332794/30.
                                                                                                                                                                                                                                                                                                                                                                                                    W09721823-A1.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 121 CTGCTAROGOCRGGACTGTTCAGAAATTCAAAAATTGAATCCTAACGAGGAAATCAGC 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       116 CTGCTAACGCCAGGACTGTTCAGAAAATTCCCAAATTGAATCCTAACGAGGGAATCAG 235
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       181 ACAGTARTGIATTICAAAACAATAAGGAAAAAGAAATTGCAOTAAGAGTCTTGAGTTA 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    296 FIGURE FULLIFICATION FOR STATEMENT FOR STATEMENT STA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   116 GTAGCGGCAGCTCCAGAGAAGAAAGTGTTCAGTAAGAAATCTTGAGAAGAACTATGGT 175
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              - HILLIH 
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Basel Local Statisticy 96.2%: Predicate 94.44.94.94
Matches 130; Conservative 0; Mismatches 14; Indels 0; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1 ATGANGGGCTGANAGCTCTCATATTAGTGATTTAGTTCTAGGTTTGGTAGTAGGAGG 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Protease(s) and genes encoding them obtained from Thermococous and Pyropocous strains - have extremely high thermal stability and are useful industrially and as research respents
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Morishita M, Takakura H:
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Tgundsawa S, Yanamoto K;
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P-PSDB; AAWZ4128.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   12-DEC-1995;
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955 GTC------GGTGCAGTTGACAGCAACGACATCGCCAGCTTGTGCAGCAGG 1002
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                                       535 AAAGTAATTGGGTGGGTAGATTTTGTCAATGGTAGGAGTTATCCATAGGATGACGATGGA 594
                                                                               395 CATGGAATCARGTRACTTCARAGAGCTGGTACTAGAGCAGCAGATAATGGCAAGTAC 654
610 CATGGAACTACARGAAGAATACGTGGAGGAAGATACTGCTTTTAC 666
                                                                                                                                                                                                                                                                                                                    655 ANGGLANTGGCTCCAGGAGCTAAGCTGGCGGGAATTAAGCTTCTAGGTGGCGAATGGTTCT 714

667 AAAGCGTTGCTCCTAGATTGGTAGAATTAAAGTTTAAAGAATGAAATGAAGG 726
                                                                                                                                                                                                                                                                                                                                                                                                                                                           775 GGAATTANGGTCATTAATCTTTCTCTTTGGTTCAAGCCAGAGCTGCGACGGAACGGACTCC 834
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Job time : 294 secs
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                                       1221 CGACCCCTACGATGACCAGGACACGAAACCACGTTGCGGGGATGCGGGAACG 1280
                                                                                                                                                                                      792 CCGTFGTPACAAGATAAGTACGGAATAAGGTCATTAATCTTTCTCTTGGTFCAAGC 911
11398 ACGTCCAGAACTAGGACATAAGGGTAAGAGTCATCAACTCTCCTTGGTFCTTCTT
11398 ACGTCCAGAACTAGGACAATAAGGGTAAGAGGTCACAACGTCTCGCTTGGGTFCTTCTT
572 GTTATCCATACGATGACCATGGACATGGAACTCATGTAGCTTCAATAGGAGCTGGTACTG 631
                                                                                                                                      632 GAGCAGCAAGTAATGGCAAGTACAAGGGAATGGCTCCAGGAGGTAAGGTGGCGGGAATTA 691
                                                                                                                                                                                                                                                                                     692 AGGTTCTAGGTGCCGATGGTTCTGGANGCATATCTAGTATAATTAAGGGNGTTGAGTGGG 751
                                                                                                                                                                                                                                                                                                                                    New DNA sequence of thermophilic protein decomposition enzyne and protein derived therefrom -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         This sequence represents the DNA encoding the Thermoanscrobacter yonseil subtilisin-like serine protesse of the invention.
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A2.1719
A2
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421 TCTGCAGCTCAAGTTATGGCAACTTAGAACTTGGGATTGAGGTTGTGGAATC 480
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Parent No. US20020132335A1
GENERAL INFORMATION:
APPLICANT: TAKAKUAA, HIMBU
APPLICANT: MORISHITAA, Mis
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SHIMOJO, Tombko
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83.94; Pred. No. 0;
*Ive 0; Mismatches 292; Indels
ORGANISM: Artificial Sequence
                                      US-10-090-624-11
                                                                                                                        Best Local Similarity 83.98
Matches 1573; Conservative
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              FEATURE
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APPLICANT

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                                                                                        1177 CAGGGGCCACCGAAGTGGACCCCGGACAAGGTGAAGACCGCCCTCATCGAGACCGCCGAC 1236
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PRIOR FILING DATE: 2001-01-30
PRIOR APPLICATION NUMBER: PCT/US01/0068
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Sequence 20241, Application US/09864761
Pacent No. US20020048753A1
GENERAL INFORMATION:
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MARICANET ANDA, ELYDON
MARICANET AND INTERNED THE PREFERENCE TO ALL OF THE BURNEST TO A
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Odory Mack Local Similarity 4.50. Pred No. 6.12-19. Metches 499; Conservative 9. Natural Conservative 6; Metches 499; Conservative 6.

1894 CCGGGAACCTGGACCTTCCTCGTCTACGCCTACAGCACC 1932 

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814 AGCTCCGACGGAACCGACTCCCTCAGTCAGGCGTCAACAACGCCTGGGACGCGCTATA 873
       994 TCCACCAGGGGACCGACCGACGGAAGGCTCAAGCGGGAAGTGGTCGCCCCCGGGCTTT 1053
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Patent No. US20020048763A1
GENERAL INFORMATION:
RESULT 5
US-09-864-761-3471
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US-09-864-761-19241, Application US/09864761
Sequence 19241, Application US/09864761
Patent No. US20020048763A1
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4.94, Score 97.6; BB 10; Length 2712;
Basel Local Schlatticy 4.534; Fardi No 5.74-16;
Matches 309; Gosservative 0; Mismatches 594; Indels 15; Gape
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4.34; Score 64.8; DB 10; Langth 390;
Best Local Similarity 52.24; Pred. No. 4.7e.13;
Matches 188; Conservative 0; Mismatches 172; Indels 0
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CHREAT FLILIO CARE. 2001-07-319
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CHREAT FLI
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Patent No. US20020144047A
GENERAL INPORTATION:
APPLICANT: Buddorth, P.
                                    US-09-790-399-7
Sequence 7, Application US/09790399
Patent No. US20020038000A1
GENERAL INFORMATION:
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ORGANISM: Artificial Sequence
PEATURE:
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Ran, B.
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Cooper, Bret
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Chang, H.
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US-09-887-576-784
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2111 AGCTCCGGCGGGAAGCTCGACGCCGCGACTACGCGGG 2148
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       MERCORNY NO. 1 June 1900.

APPLICANT SAME J. June 1900.

APPLICANT SAME J. JUNE J. JUN
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46.2%; Pred. No. 9.8e-12;
tive 0; Mismatches 323; Indels
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Patent No. US20020076414A1
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Matches 277; Conservative
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US-09-922-217-1058
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US-09-922-217-1058
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1129 ACCAGCATGOCCACCOCGCACGTTTCGGGGGGTTGGCGCGCTCATCCTCCAGGGCCACCCG 1188
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1249 AAGGARTAGGGGACATCGCCTACGGTGCGGGTAGGGTGAACGTCTACAAGGCATCAAG 1308
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1369 CACACCTYCGACGTCAGCGCCACCTYCGTGACGGCCACCTCTATGGG----ACACG 1425
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1426 GGCTCGAGCGACATCGACCTCTACCTCTACGACCCCAACGGGAACGAGGTGACTACTCC 1485
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               418 ANGGGACTGGGCCTGGCTCAGGCCCGACGGCAAGACCCAGGTCACGGTGAGTACCTC 537
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1486 PACACCGCCTACTACGGCTTCGAGAAGGTCGGCTACTACAACCCGACCGCCCGAACTGG 1545
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1546 ACGSTCAAGGTOSTCAGCTACAAGGCGGGGGGAACTACCAGGTGGAGGTGGTGAGGGAC 1605
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 598 GACGAGACGTCACCAACGACGAGATCGCCGCCGACCTCAAGGAGCACGTCATCAAGCCG 657
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               658 GYCATCCCCGACAAGTACCTCGACGAAGAAGCAICTTCCACCTCAACCCTCGGGCGC 717
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              838 GTCGACCGGAGCGGCGCTACATCGCCAGGCGGCGCGAAGAGCA---TCGTCGCCAGG 894
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             178 ACCACCAAGGCACGTCGACTACGAGAACATCGTCGCGGACACCTCGGC 237
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query March 4.24; Score 83.4; DB 10; Length 1185; mast Local Sinclarity 45.34; Perci No. 2e-12, 62.13 Sinclarity 45.34; Perci No. 2e-12, 62.13 Sinclarity 45.34; Caps Marches 383; Capstvatve 0; Mismarches 456; Indole 6; Gaps
TILLE OF INVENTION Demonsters for regulation of plant expression contents and the contents of 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TYPE: DNA
ORGANISM: Oryza sativa
US-09-887-576-784
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SEQ ID NO 784
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. 4.24; Score 82.6; DB 10; Longth 1329;
Smallarity 48.34; Pred. No. 3.58-12;
75; Conservative 0; Mismatches 349; Indels 54; Caps
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             575 ATCCATAGGATGACCATGGACATGGAACTCATGTAGCTTCAATAGCAGCTGGTACTGGAG 634
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      539 AACCCIATGATGACAATGGCACGCCACACACTCCTTGCCGAAACGCAG 598
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          695 ITCTAGGTGCCGATGGTTGTGGAAGCAIATCTACTATAATTAAGGAGTTGAGTGGGCCG 754
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               755 TTGATAACAAAGATAAGGAATTAAGGTCATTAATCTTTGTCTTGGTTGAA------ 808
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    219 frchatichathaghanncetgargatechiedaeathathteangreathggeg 778
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          959 ATACAGTCAGCCGGAGGATGACGATGTCGCCTCTTATTCAAGCAGGGCCGACAATCT 1018
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            917 COSTCRECTCACCCGCCGCGCGCAGCAAGGTCATAACCGTCGGTGCAGTTGACAGCA--- 973
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ORGANISM: Bacillus licheniformis
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Best Local Similarity 48.31
Matches 376; Conservative
                                                                                                                                                                                                                  RESULT 13
US-09-974-300-1934
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1769 GTGACCTGACCTTCGATACTTCCTACAACGACCTCGACCTCTACGACCTCTACGACCCCAACG 1828
                                                                                                                     1349 OCGACANGGGANGGGCCAQCCACCCATCGACGTCAGCGCGCGACTTGGTGACGCCA 1408
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4.2%; Score 83.2; DB 10; Length 15720;
Best Local Similarity 46.2%; Pred No. 9.68-12;
Matches 277; Conservative 0; Nismatches 323; Indels 0;
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US-09-833-263-1058
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                                                                                                                                                                                                                                                                                       1374 CTTCGACGTCACGGCGCCACCTTCGTCACGACGCGCTCACTACTGGGACACGGGCTCGAG 1433
254 GATAGCGAACATCGGCTACGGTGCGGGTAGGGTGAACGTCTACAAGGCCATCAAGTACGA 1313
                                                                                                                                       Indels 6; Gaps
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                                               253 CGPCGCGTCGCGTCGCGTCGCGTTCGCGGTCACCATCAGCATCAGCGTCCG 194
                                                                                                                                                                                               193 GSYCTGGGTCGGGATCCGCATCAGCGTCGCGATCGCGTCGGCGTCGGCTCGGCTTG
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Pred. No. 2.5e-11;
0; Mismatches 608; Indels 5;
                                                                                                                                                                                                                                                                                                                                                                                                                                      1434 CGACATCGACCTCTACCTCTACGACCCCAACGGGAACG 1471
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      73 CATCGCCGTCCGCATCGCCATCGCGTCAGCG 36
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ORGANISM: Streptomyces albidofiavus
US-09-748-033-6
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Best Local Similarity 42.8%
Matches 460; Conservative
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US-09-748-033-6
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                                                       1076 GCGGAACCAGCATGGGCACCCCGATAAA------CGACTACTACTACACCAAGG 1120
                                                                                                                       1079 ccddarctiffctccarfanctigeaaalaacaaagreggcacaaaaththegacat 1138
                                                                                                                                                                                                                                                                                                                                       1181 CCCACCCCAACTTGGACCCCCGGACAAGGTGAAGACCGCCCTCATCGAGACCCCCGACATA 1239
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US-09-374-100-5249/c
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Sequence 5249, Application US/09974300
Fatent No. US2002146721A1
GENERAL INVENATION:
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OTHER INFORMATION: n = A,7,C or G
US-09-974-300-5249
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Search completed: November 3, 2002, 13:09:07 Job time: 89:5 secs

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GanCore varsion 5.1.3 Copyright (c) 1993 = 2002 Compagen Ltd.	OM nucleic - nucleic search, using sw model	Run on: November 2, 2002, 08:16:03; Search time 51.5 seconds (vibility alignment) motor of 11772-815 Million cell motor of 2002	Fills: US-09-841-553-6 Perfect Bore: 1977 Refect Bore: 1977 Refect Bore: 1977 Reference Bore:	Scoring table: IOENTTY NUC Gapop 10.0 , Gapext 1.0	Searchod: 441362 seqs. 15333831 realdues	Total number of hits eatlsfying chosen parameters: 882724		Post-processing: Minimum Match () Maximum Match () Listing first 4) summarica	Databaso   Instance   Caracteristic   Caract	Pred. Mo., is the number of results predicted by chance to have a socse greater than or edges to be acree of the results baing printed, and is delived by analysis of the total score distribution.	SUMMARIES	Result No. Score Match Length OR TO	100.0 1977 4 119-09-004-0105	69.1 1962 4 US-08-894-818B-34 Sequence 6, A	68.8 1977	1505 4 US-08-694-8188-15 Sequence 15, 1566 4 US-08-694-8188-4 Sequence 4, A. 1236 4 US-08-84-8188-4	569.8 33.9 898 1 US-08-750-532-7 Sequence 2	427 21.6 564 1 US-08-97-02-82-26 Sequence 2	3415 17.3 419 4 US-08-894-81818-30 Sequence 14, 197 10.0 1464 US-08-894-8188-17 Sequence 30, 131	131 6.6 2539 3 US-09-000-016-3	131 6.6 2809 3 US-09-000-016-1	107.6 5.4 5163 3 US-08-700-651-1	5.4 5318 3 US-08-700-651-2 5.4 5318 3 US-08-700-651-2 5.0 440376 4 US-08-928-3518-3	97.6 4.9 2712 3 US-09-025-61-4 97.4 4.9 4813 3 US-08-025-61-4	97.4 4.9 7334 3 US-06-928-361B-1 86.8 4.4 2064 1 US-08-928-361B-1	Sequence 1, Appli

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AGGODOMAGOOGGAAGTOGTCGCCCGGCGTTGACATCATAGCCCCGCGCGCCAGCGGA
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                                                                                                                                                                                                                                                                                                 241 ATGGGTGCAAAAGTTAGGTATGTGTACCATATTATAGCGGCAATAGGTGCCGATGTTAAG 300
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                                                                                                1 ATGANGGGGCTGNAAGCTCTCATATTAGTGATTTTAGTTCTAGGTTYGGTAGTAGGGAGC
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                                                                                                241 ATGGGTGCAAAAGTTAGGTATGTGTACCATATTATACCGGCAATAGCTGCGGATAAG
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81.2%; Pred. No. 9.7e-292;
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107 AGAAGAACTATGGTCTGCTAACGCCAGGACTGTTCAGAAAATTCAAAAATTGAAAATCCTA 166
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Best Local Similarity 83.94; Pred. No. 1.7e-290;
Matches 1973; Conservativa 0; Mismatches 292; Indels
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TELEDOMUNICATION INFORMATION
TELEFAX: (202) 737-5328
INFORMATION FOR SEQ ID NO: 2:
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US-08-694-8168-2
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TYPE: nucleic acid
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STREET: 419 Seventh Street N.W., Ste. 300
CITY: Washington
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: Patent No. 6261822
: GENERAL INFORMATION:
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287 CIGCGGATCTTAAGGTTAGAGACTTACTAGTCATCTCAGGTTAACAGGGGGTAAAGGT 346
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                                                                                                  167 ACGAGGAAATCAGCACAGTAATTGTATATGAAACCATRGGGAAAAAAGAAATTGCAGTAA 226
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1724 ACACCTTCACCATGAACGTCAACAGGGTGCCACCAAGATAACGGGTGACCTGACCTTCG 1783
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                  Query Match Landarity 83.94; Score 1360.8; DB 4; Length 1977; Berl Local Similarity 83.94; Perd No. 1.76-980; Matches 1973; Conservative 9; Hanatches 1973; Conservative 9; Hanatches 1979; Conservative 9;
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                                         CCGATGGTTCTGGAAGCATATCTACTATAAGTAAGGGAGTTGAGTGGGCCGTTGATAAGA
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Db 1544 GGACGGTCAAGTCGTCAACTACAAGGGCGCGCGAACTACCAAGTCGAAGTCGTCGTCAAGTCGTCAAGTCGAAGTCGAAGTCGAAGTCGAAGTGGAAGTAAGT	99 1504 AGGGARGCTFARGCARGTGGGGGGGAACCCAAACCCAAACCCAAACCCAACCC	99 1664 CCCCGACCACCACACACATCACCGGTTACCGTTAACGACTACTGGACACACAC	dy 1724 ACACTTCACATEGACGTCAACACGGGGACACCAAGARAACGCGGGACCTGACCT	09         1784         ATACTTCCTNOANGGACCTCTACCTCTACCTCTACGACGCCAACGCCAACGCCTCTCACA, 1843           09         1784         ATACTTCCTNOANGCACTCTCAACCTTACCTACACACCCCCAAGGGCAACTCCTTACAACACCCCAAGGGCAACTCCTTACAACACACAC	Oy 1844 GGTCCAGGTCGAGCAGCAGTAGAGTCGAGTCGACACCCCGCCCCGGGAACCT 1903  Db 1844 GGTCGACGTCGAGCAACACTAGGAGACACTAGCAGCAGCCCGCCC	9y 1991 GALGTI-CETGUTCHAGGETAGAGACCHAGGGGGGACHACHAGHAGGCG 1963 Db 1991 GARGTTGTGGTGATAGAGATAGAGCTAGGGGGGGGGGGGG	Oy 1964 TOCSTARCHOGGG 1977  Db 1964 TOCSTARCHOGGG 1977	RESULT 6 188-15 15-08-94-05-15 	Sequence 1.2 Application US/OB8948189 1 Rater No. 626812 2 GENERAL THORMATION HAMBOU	APLICAM: NOBIRITA, NA. APLICAM: NAMADO, RELEALLA APLICAM: NATA, MESENCII APLICAM: ASADA, AIAOO	A PELICANT: SANDASANA, SABUNA TITLE OR INVENTION: MYPERTHERMOSTABLE PROTEASE CEMES	CHARGNADARE AND MORESSE. CHARGNADARE BROWN AND ASLEE NO. STREE 300 CTY: Washington	STATE: D.C. COUNTRY: United States of America COUNTRY: United States of America COUNTRY PROMISE PONH:	MEDIUM TYPE: TOOPPY CLEAR COMPUTER: IBN PC COMPALIDLE COMPUTER: IBN PC COMPALIDLE COMPUTER: IBN PC COMPALIDLE SOFTWARE: PREMETER RECORDER 91,0 Version 91 10		PRIOR MPLICATION DATA.  ** APPLICATION NINGER: PCT/LP66/03253  FILITH DATE: 0 ** NAV-1996  ** PRIOR MPLICATION DATA.	APPLOATON WHOSE: JP 122285/1995 FILMS DATE: 12-00-1995 ATTOREY/AGENT INFORMATON:	REGISTRATION BINNER: 25,618 REFERENCE/COCKET MINER: 75,618 FEFFFORMERIZATION BINNER: 754ARURA-1 FEFFFORMERIZATION FOR STORM FO
464 ATRATECTICTICANTCACANTAGAATAATTGACCACTGAANTGACGGTTCECANTCAG 523 467 ACCACGGAACCGTGGTGGTGCTTGCCATTGCGATACGGGTATAGACGGAACCACCG 526	524 ATCTCCA/GGARAAGTAATTGGGGGGGGTAGATTTTGCCAATGGTAGGAGTAATGCATAGG 583 [1]	584 ATGACATGACATGAACTCATGTAGCTTCAATAGCAGCTGGTAGTAGTGGAGCAGCAAGTA 643 587 ATGACCAGGGAACGAACGAACTAGTAGCTTCAATGGTAGCGGAACAGCGAAGCAAGTAGAAGAAGAAGAAGAAGAAGAAGAAGAAGAAGAAGA	64 ATGCCAAGTACAAGGGAATGGCTCCAGAAGTGCCGGGGAATTAAGGTTCTAGGTG 703 644 ACTCCAGTAATAAGGGTGCTCCAGGACCCAGAAGTCCTGGGGTGATGGTGTTCGTG 703	704 CCOATGOTTCTGGAAGCATACTATAATGAGGGGTGAATGGCGCGTTGATAAC 763 704 CCOACGGTTGGGAAACGGTTCACCATCATCGCGGTTGAATGGTCGTCGAAAGA 763	764 AAGARAGTAGGAATTAAGGTGATTAATGTTTGTGTTGAAGGGAGAGGTGGG 823 764 AGGAGAAGTAGGGGATAAGGTGATGAAGTGCGTGCAGAGGTGCAGAGTGCGAGGGGGGGG	834 GANCGGACTCACTCAGTCAGCCGTCAACAACACCCTGGGACGCGGGTAFAGTAGCGGG 883 [HIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	88 T DISCORDOZANDAROGAGGGGGANACACTA BACCGTGGGTPA ACCGGGGGGGGGGGG 913 88 T VGGCGGCGGGGAACACGGGGAARACHTHITHITHITHITHITHITHITHITHITHITHITHITHI	944 AGSTCATAACCGTCGCTCCAGTTGACACGACGACAACATGCCAGCTGTCGCGAGGG 1003	1004 GACCGACCGCGGACGCACGAAGCTCAACCCGCAAGTCGTCGCCCCGGCGTTGACATCATG 1063 1004 GACCGCCGACGCGAAGCTCAAGCCGAAGTCGTCGCCCCGGCGTTGACATCATG 1063 1004 GACCGCCGACGGAAGCTCAAGCCGAAGTCGTCGCCCCCGGCGTCTAAGATTATATATA	1064   CCCCGGGGCGCCAACCAACCAGGATGGCACCGCAATAAACCAATAGTACAACGAGGCT   1123   1064   CCCCGGGGGCGCCAACCAACCAACCAATGGGCAATAACGACGAATAACGACGAATAACGAACTACGAATAACGAATAGGAACAACGAATAGGAACAACGAATAACGAATAACGAATAGAACAACAACAACAACAACAACAACAACAACAACAACAA	1124 CT0GAACDACATGACCACCGCAGGTTTCGGGCGTTGGCGCCCCACATGCTCCACACCCC 1133 1124 CT0GAACCACATGCCCCCCCCCCCCCACATTTCGGCCGTTCATCGTCCTCACACCTTCATTCGTCTCATCGTCATTCAT	1184 ACCCGACCTGGACCCGGGACAAGTGAAGACGCCCCTCATCGAGACCCCCGAGAGAGTCG 1243 1184 ACCCGAGACTGAACCCGGACAAGCGCGTGAAACCGCCTGATCGAGACCCCCTGAGAGAGA	1244 CCCCCANGCAATAGCGGAATCGCTACGGTGCAGGTGAACGTCAAAGGCC 1333 1244 CCCCCAAAGGAATAGCGGAATCGCTACGGTGGAGTGAACGTCAAAGGCC 1333 1244 CCCCCAAAGGAAATAGCGGAAATGCCTACGTAGGGTGAACGTTGAAACGTCAAAGGAATAGAAAGGAAATGCAAAGGAAAAGGAAAGGAAAAGGAAAAGGAAAAGGAAAAGGAAAA	1304 TCANGTAGGAGGACTAGGCGAAGGTGACGTTGAGGGCGTGGCGTGGCGGAAGGGAAGGCGAAGAAGGAAG	1364 COACCOACACATCAACGTCAACGGCCACCTTCGTGACCGCAACCTTCTAACTGGTGA 133 1364 CAACCAACATTCAACGTCAACGGCCACCTTCGTGACCGCAACTTAACACATTAACAACTTAACAACTTAACAACTTAACAAC	1424 GOGGETGAGGAGATGACCTCTACCTCTACGACCCCAACGGAACTGACTG	1484 CCTACACCCCCTACTACTACCCCTCCACACCTCCCTACTA	1544 GGACGGTCAAGGTCGTACTACTACTACTACTACTACTACTACTACTACTACTACT

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1833 CCTCGTTGACAGGTCCACGTCGAGCAACAGCTACGAGCACGTCGAGTACGCCAACCCGGC 1892
841 ODGGAACODAACODGGACCACGGACACCCAGACCTTCACGGGTTCCGTTAACGACTACTG 900
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OFFENTION SYSTEM: RC-1000/RS-100

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PILING DATE: 07-NOV-1996
PRIOR APPLICATION DATA:
APPLICATION NUMBER: JP 323285/1995
FILING DATE: 12-DEC-1995
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COUNTRY: United States of America
ZIP: 20004
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Patent No. 6261822
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APPLICAN: TAKAKURA, HIKATU
APPLICANT: TAKAKURA, MAD
APPLICANT: TAKAKURA, MAD
APPLICANT: TAKAKOTO, Reteuniko
APPLICANT: MITTA, MAGGEOFI
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REGISTRATION NUMBER: 25.618
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ISUNASAWA, Susumu
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TELFAX: (20) 737-3528
SEQUENCE CRARACTERISTICS:
LENGTH: 1565 base pairs
TYPE: mucleic acid
STRANDENNESS: double
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NAME: Browdy, Roger L.
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PRICE APPLICATION DATA:
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                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match 58.94, Score 1165, DB 47. Length 1859, Master Local Smilarity 100.04.97, Fred. No. 2e-247, Master Masser Ches 105; Conservative 0; Mismatches 105; Conservative 0; Mismatches 105.
                                        TELEPHONE: (202) 628-5197
TELEFAX: (202) 777-3528
INFORMATION FOR BOD ID NO: 15: SEQUENCE CHARACTERISTICS.
LENGTH: 1859 base pairs
                                                                                                                                                                                                                                                                                                                                genomic DNA
                                                                                                                                                                                                                                TYPE: nucleic acid
STRANDEDNESS: double
                                                                                                                                                                                                                                                                                                        TOPOLOGY: linear
MOLECULE TYPE: geno
Us-08-894-8188-15
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Pred. No. 2.56-175;
O: Mismatches 245; Indels (
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Patent No. 6358736
GENERAL INDEMANTON: APPLICANT: TRANSMA, Hitaru
APPLICANT: TRANSMA, Hitaru
APPLICANT: HORISHITA, Mio
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Best Local Similarity 80.1%;
Matches 984; Conservative (
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US-09-445-472-2
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                                                                                Bonery Merit Local Similarity 16:00; Score 969-4: DB 4: Length 1566; Marches 1208; Conservatio 0; Manakches 357: Indels 15;
PENTURE: OTHER INFORMATION: /note- N at position 1283 is G or T.
                                     US-08-894-8188-4
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1537 GGANCCEGACGECAAGGECGECACACAAGGCGCGCGCAACAACAACAGGECGACGTC 1596
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COMPUTER: IDM FC compatible
OPERATING SYSTEM: PC COMS/MS-DOS
SOFFWARE: Patentin Release #1.0, Version #1.30
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STREET: 419 Seventh Street N.M., Suite 300
CITY: Washington
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APPLICATION HATS.
APPLICATION NUMBER: PCT/JPS5/01095
FILING DATE: 05-JUN-1995
PRION PROLECATION NUMBER. JP. 1994/130236
APPLICATION NUMBER. JP. 1994/130236
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APPLICATION NUMBER: US/08/750,532
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Patent No. 5756339
GENERAL INFORMATION:
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TYPE: nucleic acid
STRANDEDNESS: single
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MEDIUM TTPE: Floppy
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MOLECULE TYPE: CDNA
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US-08-750-532-7
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523 GATCTCCAAGGAAAAGTAATTGGGTGGGTAGATTTGTCAATGGTAGGAGTTATCCATAC 582 Length 898; Query Match | 33.91. Score 665.8; DI: Length E Bast Local Similarity 86.81. Pred; No 1.46-1.81. Section 16.156.7 (Conservative 0; Mismatches 188; Indela

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655 AAGGGAATGGCTCCAGGAGCTAAGCTGGGGGGAATTAAGGTTCTAGGTGCCGATGGT7CT 714
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4 CACGGAACTCACGTGGCUGGAACAGTTGCCGGAACAGGCAGCG---TTAACTCCCAGTAC 60
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COMPUTER: IBM PC competible
OPPRATIES SYSTEM: PC-DOS/MS-DOS
OPPRATIE: Patentin Release #1.0, version #1.30
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419 Sevenih Street N.W., Ste. 300
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07-NOV-1996
PRIOR APPLICATION NUMBER:
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US-08-894-8188-14
Sequence 14, Application US/088948188
; Patent No. 6281822
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                                                                                                                                                        Query Match 21.64; Score 427; DM 11: Length 564; Best Local Similarity 86.14; Pred. no. 5.2**85; Best Constructive 0; Mismatches 75; Indele
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419 Seventh Stroot N.W., Suite 300
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61 GTAGCGGCAGCTCCAGAGAAGAAGTTGAACAAGTAAGAAATGTTGAGAAGAACTATGGT 120
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 341.6; DB 4; Length 4
Pred. No. 1.80-66;
0; Mismatches 14; Indels
                                                            APPLICANT: TSUNASHA, Susumu
APPLICANT: RAD. KAUGGBLA
TITLE OF INVENTION: REPERTIBRHOSTABLE PROFENSE CENES
MINERY OF SEQUENCES: 42
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WINDOW TITE. 70 ppg (11st)
WINDOW TITE. 70 ppg (
                                                                                                                                                                                                                                                                TAKAKURA-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        United States of America
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ATTOMIC VACUE INVOICE CO.

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Best Local Similarity 96.2%;
Matches 350: Conservative (
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US-08-894-8188-30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ZIP: 20004
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116 AGGT 419
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         655 ANGGGATGGCTCCAGAGCTAACCTGGCGGGAATTAAGGTTCTAGGTGCGATGGTTC7 714
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   61 ATAGGGGTGGCCGCGGGGGAAAGTCGTGGGTGTCAAGGTTCTCCGTGCGACGCTTCG 120
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Pred. No. 3.2e-85;
0: Mismatches 75; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0: Mismatches
APPLICATION NUMBER: JP 323285/1995
FILING DATE: 12-DEC-1995
ATTORNEY/AGENT INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ; NOLECULE TYPE: Other nucleic acid
US-08-894-818B-14
                                                                                                                                      MARKET BEACH, CONTROL SERVICE 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1135 ATGCCACCCGCACGTTTCGGG 1157
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Best Local Similarity 86.14;
Matches 485; Conservative
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APPLICAM: ALSA ARISAN SCALA
TITLE OF INVESTION: NONE DECODING A PROTEIN HAVING ASTAMETRIC
TITLE OF INVESTION: HTDROLASE ACTIVITY FOR 4 SUBSTITUTED 1.4-CHRYDROPFRIDING DE
TITLE OF INVESTION: TERMESSICH PRODUCT
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                                                                     395 CAGCAGANTTAGAAGGACTGGATGAGTCTGCAGGTAATGGCAACTTAGGA 454
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       455 ACT -- TGGGATATGATGCTTCTGGATCACAATAGGAATAATGACACTGGAATTGACG 511
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335 GGGGTAAAGCTTTCAGGTGTTAGGTTTATCCAGGAAGACTACAAAGTTACAGTTT 394
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ADDRESS: Wanderoth, Lind & Penack, L.L.P.
STREET: 1003 K Street, N.H., #800
CITY: Washington
STATE: D.C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      COMPUTED TO STATE TO 
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Patent No. 6143541
GENERAL INFORMATION:
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ATTORNEY/AGENT INFORMATION:
NAME: Warren M. Cheek, Jr.
NAME: Warren M. Cheek, Jr.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         REGISTRATION NUMBER: 33,367
REFERENCE/DOCKST NUMBER:
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION 202-721-8200
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PRIOR APPLICATION DATA:
APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICATION NUMBER:
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US-09-000-016-3
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| 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 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